CIBCR

RECESSION - RECOVERY WATCH...

Published by the Center for International Business Cycle Research,
Graduate School of Management, Rutgers University, Newark, NJ 07102

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Vol. 4, No. 6
December 1982

SUMMARY

A recovery of somewhat less than average strength is getting underway, buttressed by significant reductions in production costs, increased productivity and signs of higher profit margins. An upturn in real wages, accompanying the productivity gain and reduced price inflation, has reinforced real personal income and consumer spending, offsetting some of the effect of declining employment. The first of three sequential signals of recovery has held since August but the second signal has not yet arrived.

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A New Look

With this issue we begin to monitor a much larger sample of the economic variables that have an important and systematic bearing on the generation of business cycles. By showing graphically what their characteristic behavior has been during previous recessions and recoveries and by comparing their movement in the current period with the previous record, we hope to fashion a useful tool for diagnosing current and future recoveries and recessions. Forecasts arrived at by whatever means can be evaluated against this backdrop, and modified when warranted.

Members of the staff of CIBCR chiefly responsible for the design and preparation of Recession-Recovery Watch are G. H. Moore, Perry Patterson, Young Kwon, Chantal Dubrin and Philip Goodman.

Costs, Prices, Profits and the Stock Market

Many of the processes that turn recessions into recoveries have been moving into place in recent months. One of the essential processes is reduction in costs of production and a realignment of costs and prices. This leads to an improvement in the prospects for profitable expansion of sales and output. On the cost side, we can see a reduction in the rate of increase in labor costs per unit of output of about average dimensions (chart 18), a bigger-than-average reduction in the cost of materials (20), and a substantial reduction in interest cost (24,25). The labor cost improvement is the combined result of a reduction in wage gains and an increase in productivity (17). Gains in selling prices have slowed also, but in recent quarters not as much as costs. The effect in the

third quarter was to produce an upturn in the ratio of selling prices to unit labor costs as well as in profit margins (19). The timing fits the past patterns of recession-recovery fairly closely, and this provides some basis for expecting the improvement to continue. A decline in the number of large business failures is often a harbinger of this improvement, but so far no decline has occurred (20).

Many of these cost-price developments have a bearing on the substantial upswing in stock prices in recent months (25). The decline in interest rates had a direct impact by elevating bond prices and reducing the discount on future earnings. The prospect of future growth in earnings through cost reduction probably also had a favorable effect on stock prices.

Interest Rates, Money and Debt

The interest rate decline underlies the upturn in housing starts, which also is adhering closely to previous average performance (15). Upturns in contracts and orders for plant and equipment have usually come later, and that seems to be the story this time. Interest rates also have a bearing on the cost of holding inventories, and inventory reduction was a prime objective of many companies early in the recession (16). This did not prevent a rise in the ratio of inventories to sales, but after some gyrations the ratio in September was still well above the track laid down by its average in previous recessions.

The growth rate in the money supply (M1) has usually reached its lowest ebb early in recessions, rising moderately thereafter (22). This trend towards ease, together with the declining growth of debt (22) and the lower inflation rate, has produced lower interest rates. Money growth has moved around far more violently in the current recession than it did previously but the general course has not differed much from the average recession pattern. The decline in the growth of business and consumer debt has been much steeper since last summer than its average pattern suggested (23). The rise in Federal debt has also been steeper, but this has been more than offset, in dollar magnitude, by the slower growth of private debt. Hence the growth in total debt has fallen off more sharply than usual since June. Interest rates have followed suit.

Employment and Unemployment

One of the unfortunate effects of efforts at cost reduction is unemployment and reduced hours of work (9-11). Overtime hours are cut back or eliminated, more employees are put on part-time, and many are laid off (12-14). All these leading indicators of employment, summed up in the leading employment index (1), took a turn for the worse last autumn, evidently reflecting the prior bulge in inventories relative to sales (16). They in turn set off a sharper decline in employment and a faster rise in unemployment, as summed up in the coincident employment index (1). The employment diffusion index (12) also showed renewed weakness since September, reaching its low to date in November. This index records the percentage of industries with rising employment, and it usually turns up before recovery begins.

Income and Sales

So far, at least, the weakness in the labor market has not produced as much weakness in real personal income or spending (7,8). Retail sales have been weaker than in the average recession, but total consumer expenditures (through the third quarter) have moved up along a path very close to the average. These figures all allow for inflation. The reason for the relative strength in real income, and therefore in sales, seems to lie in the fact that hourly wages in real terms have shown an unusually

strong upturn (21)*. Price inflation has subsided sufficiently, relative to wage inflation, to cause real wages to increase significantly. Productivity growth has supported this development, since real earnings and productivity are generally closely tied. If these observations are correct, there are surely some important lessons to be learned from this experience, especially about whether workers really gain from an acceleration in money wages, even if they remain employed.

The Leading and Coincident Indexes

For the reasons just noted, the emphasis on cost reduction has impinged more heavily on employment than on other measures of economic activity. This helps to explain why the leading employment index (1) is so weak while the more comprehensive leading index (2) is relatively strong. It may also explain why the coincident index (2) looks weaker than real GNP (6), since one of the four components of the index is nonfarm employment (10).

The comprehensive leading index and growth rate (4) appear to be reasonably consistent with real GNP and its growth rate (6). Both growth rates suggest that a recovery of somewhat less than average strength is getting underway.

Signals of Recovery

Our system of three sequential signals, described in the November issue of the Morgan Guaranty Survey, produced an initial signal of recovery in August (based upon July data). The initial signal has continued to hold since then but the second signal has not arrived. It requires that the leading index growth rate (based upon the annualized ratio of the current month's index to the average index for the preceding twelve months) reach 4.3% and that the coincident index rate reach 1.0%. The October figures for these rates (BCD indexes) were 5.3% and -7.1%, respectively. Hence the second signal is still some months down the road, requiring an upturn in the coincident index and continued strength in the leading. In past recoveries the interval between the first and second signal has ranged from 3 to 6 months.

The Lagging Index

Lagging indicators have probably become more widely recognized in the current recession than at any other time in history, as a result of the emphasis by the President and others on the fact that unemployment is a lagging indicator. This characteristic has manifested itself at most upturns in the business cycle, when the downturn in the unemployment rate has usually come a few months later. The chief reason is that increases in employment when the business cycle is bottoming out are usually smaller than the continued growth in the labor force. The employment diffusion index mentioned above suggests that the current situation will be no exception to this rule.

The unemployment rate is not a component of the lagging index, because at business cycle peaks it does not lag, it leads. The components of the index lag at both peaks and troughs. These components play a strategic role in the generation of business cycles. They represent factors that create imbalances leading to recession (when they rise rapidly) and reflect correction of these imbalances (when they fall rapidly). The cost and inventory variables discussed

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* The upturn is still present, though not as dramatic, when wages are adjusted for inflation by the experimental CPI that measures housing costs in terms of rental equivalent. This index will become the official CPI after January 1983, and is more nearly comparable with the index used to deflate personal income and consumer expenditures.

above are prominent among the lagging indicators. As a result of these relationships a downturn in the composite lagging index is a signal of recovery, especially when it is rapid enough to exceed the decline in the coincident index. The downturn in our lagging index came last spring, but so far it has not been rapid enough to produce a rise in the ratio of the coincident to the lagging index (5).

Two statistical problems have beset the lagging index in recent years. One is that two of the components, unit labor costs and bank loans, have been rising rapidly because of inflation, and this has pushed the index up, especially in relation to the coincident index, which includes only inflation-adjusted or physical measures of activity. The second problem is that one of the lagging series, the prime rate, has become far more volatile than it used to be, so much so that its movements have dominated the lagging index, both on the upside and on the downside. Both of these problems have been corrected in the index shown in Chart 5.

RECESSION/RECOVERY STATUS UP TO 16 MONTHS AFTER THE BUSINESS CYCLE PEAK

PERCENTAGE ABOVE (+) OR BELOW (-) THE PRECEDING BUSINESS CYCLE PEAK, UNLESS OTHERWISE NOTED

		MONTHS AFTER BUSINESS CYCLE PEAKS	THREE MILD RECESSIONS STARTING APR 1960	DEC 1969	JAN 1980	FOUR SHARP RECESSIONS STARTING NOV 1948	JULY 1953	AUG 1957	NOV 1973	CURRENT RECESSION STARTING JULY 1981	LAST MONTH OR QUARTER AVAIL.
I.	COMPOSITE INDEXES										
1.	LEADING EMPLOYMENT INDEX (CIBCR)	16	3.8	-0.2	3.4	2.7	1.1	3.8	-8.9	-4.4	11/82
	COINCIDENT EMPLOYMENT INDEX (CIBCR)	16	-1.7	-5.0	0.5	-8.1	-9.7	-5.8	-9.7	-8.5	11/82
2.	LEADING INDEX (BCD)	15	0.1	6.6	2.0	6.6	4.4	9.6	-18.5	-2.4	10/82
	COINCIDENT INDEX (BCD)	15	-2.2	-2.3	-2.3	-6.5	-7.7	-3.6	-12.0	-9.3	10/82
3.	LEADING EMPLOY. INDEX, GROWTH RATE *	16	8.0	2.4	8.2		8.6	3.1	-12.1	-6.2	11/82
	COINCIDENT EMPLOY. INDEX, GROWTH RATE *	16	-0.4	-2.2	3.0		-2.6	6.9	-19.8	-10.9	11/82
4.	LEADING INDEX, GROWTH RATE *	15	18.3	20.2	15.2		17.9	24.1	-18.4	4.9	10/82
	COINCIDENT INDEX, GROWTH RATE *	15	-0.1	-0.8	3.1		-6.2	9.1	-19.4	-9.8	10/82
5.	LAGGING INDEX (CIBCR)	14	-4.3	-6.7	-3.5	-6.5	-9.6	-10.5	-0.6	-0.1	9/82
	COINCIDENT/LAGGING RATIO *	14	13.8	-3.4	-3.3	45.6	29.7	21.5	-13.5	-13.6	9/82
II.	OUTPUT, INCOME AND SALES										
6.	REAL GNP	12	1.6	-0.1	0.9	-1.4	-3.2	-0.4	-2.8	-2.1	III/82
	REAL GNP GROWTH RATE *	12	0.9	-0.3	2.0	-5.6	-8.5	0.2	-6.4	-3.3	III/82
7.	INDUSTRIAL PRODUCTION INDEX	15	0.1	-2.3	-0.6	-2.6	-6.9	-1.3	-14.3	-11.2	10/82
	REAL PERSONAL INCOME	14	3.1	3.0	1.9	3.8	0.2	1.3	-2.8	0.2	9/82
8.	REAL CONSUMER EXPENDITURES	14	1.5	3.5	1.2	3.1	2.1	2.0	-1.0	1.4	9/82
	REAL RETAIL SALES	14	-1.7	4.8	0.0	5.7	1.6	-3.5	-5.2	-2.0	9/82
III.	EMPLOYMENT AND UNEMPLOYMENT										
9.	TOTAL CIVILIAN EMPLOYMENT	16	0.4	0.4	1.1	-1.3	-1.6	-1.0	-1.2	-1.7	11/82
	EMPLOYMENT/POPULATION RATIO *	16	-0.7	-1.2	-0.5	-1.5	-1.6	-1.4	-2.1	-1.8	11/82
10.	NONFARM EMPLOYMENT	16	-0.4	-0.1	1.0	-2.8	-2.5	-1.8	-1.7	-3.4	11/82
	NONFARM EMPLOYEE-HOURS	16	-0.3	-1.7	-0.3	-3.4	-2.8	-1.9	-3.7	-4.0	11/82
11.	UNEMPLOYMENT RATE, TOTAL *	16	1.4	2.3	1.3	2.5	2.7	2.0	3.8	3.5	11/82
	UNEMPLOYMENT RATE, INSURED *	16	0.9	1.6	0.1		2.5	1.7	3.7	2.2	11/82
12.	EMPLOYMENT DIFFUSION INDEX, 186 IND. *	16	6.8	-18.7	14.9	-0.5	-7.7	67.8	-54.3	-46.2	11/82
	PART TIME EMPLOYMENT RATIO *	16	-0.2	-1.3	-0.6			-0.2	-1.6	-1.1	11/82
13.	AVERAGE WORKWEEK, MFG.	16	0.6	-1.8	0.7	0.2	-1.2	0.0	-4.5	-2.8	11/82
	OVERTIME HOURS, MFG.	16	-1.3	-19.2	5.5			11.9	-36.8	-23.3	11/82
14.	LAYOFF RATE *	16	0.0	0.4	0.3	-0.1	0.1	-0.1	1.5	1.4	11/82
	INITIAL CLAIMS, UNEMP. INSURANCE	16	3.8	28.4	-3.1	27.8	31.2	19.0	106.4	54.1	11/82
IV.	INVESTMENT COMMITMENTS AND INVENTORIES										
15.	HOUSING STARTS	15	9.2	57.4	-6.9	52.7	19.3	33.7	-45.0	11.0	10/82
	CONTRACTS & ORDERS, PLANT & EQUIP.	14	-0.1	-6.5	-6.5	1.2	-1.9	1.4	-24.9	-13.9	9/82
16.	CH IN INVENT ON HAND & ON ORDER, 72$ **	14	14.2	15.1	6.7	12.3	11.2	9.8	-72.2	-7.6	9/82
	INVENTORY/SALES RATIO, TIMES 10 *	14	-0.1	0.3	0.0	0.0	0.0	-0.3	1.9	0.9	9/82
V.	PRODUCTIVITY, WAGES, COSTS, PRICES AND PROFITS										
17.	OUTPUT PER HOUR, GROWTH RATE *	12	3.8	2.2	4.1	-3.8	-1.4	2.0	-1.6	0.7	III/82
	HOURLY COMPENSATION, GROWTH RATE *	12	-1.1	-0.1	0.5	-5.8	-2.7	-1.2	3.5	-2.5	III/82
18.	UNIT LABOR COSTS, GROWTH RATE *	12	-4.7	-2.5	-3.9	-1.7	-1.5	-2.7	4.8	-3.1	III/82
	SELLING PRICE INDEX, GROWTH RATE *	12	-0.4	0.3	0.3	-5.0	0.0	-2.0	6.6	-4.7	III/82
19.	PRICE/LABOR COST RATIO *	12	0.3	-0.7	1.5	-1.3	-1.4	-0.6	-1.2	-1.0	III/82
	CORPORATE PROFIT MARGIN *	12	0.4	-1.2	0.9	-1.3	0.5	-0.6	-3.2	-0.2	III/82
20.	BUSINESS FAILURES	15	35.5	18.7	131.0	-6.2	-4.5	31.8	23.2	100.8	10/82
	INDUSTRIAL MATERIALS PRICE INDEX	15	-1.8	-7.7	-5.9	-22.0	3.1	-0.5	-10.8	-23.0	10/82
21.	CONSUMER PRICE INDEX, GROWTH RATE *	15	-0.6	-2.1	-4.6	-3.3	-2.2	-2.6	1.7	-4.7	10/82
	REAL HOURLY COMPENSATION, GROWTH RATE *	12	0.2	0.2	3.7	-1.1	-3.2	0.5	0.3	2.0	III/82
VI.	MONEY, CREDIT, INTEREST RATES AND STOCK PRICES										
22.	MONEY SUPPLY (M1), GROWTH RATE *	15	3.1	3.9	4.6	2.7	0.9	4.2	-1.7	3.2	10/82
	TOTAL DEBT, GROWTH RATE *	14	-1.8	0.0	-2.3			0.8	-2.9	-4.1	9/82
23.	BUSINESS & CONSUMER DEBT, GROWTH RATE *	14	-5.3	-2.1	-5.5			-2.8	-5.7	-8.4	9/82
	FEDERAL DEBT, GROWTH RATE *	15	3.2	3.0	6.1	4.2	-0.8	5.7	5.5	6.2	10/82
24.	TREASURY BILL RATE *	16	-0.9	-3.8	4.0	0.0	-1.1	-0.6	-2.0	-7.0	11/82
	TREASURY BILL RATE	16	-27.1	-49.5	32.5	-1.8	-54.9	-17.4	-26.8	-46.4	11/82
25.	CORPORATE BOND YIELD *	15	-0.2	-1.4	2.9	-0.5	-0.8	-0.3	0.8	-3.0	10/82
	STOCK PRICE INDEX (S&P 500)	16	22.5	11.3	18.3	11.5	38.1	16.0	-18.0	5.9	11/82

* PERCENTAGE POINTS CHANGE FROM PEAK LEVEL.
** CHANGE IN BILLIONS OF 1972 DOLLARS.

RECESSION-RECOVERY PATTERN CHARTS

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RECESSION - RECOVERY PATTERNS

———— Current recession (business cycle peak: July 1981 or IIIQ 1981)

######## Average of six recessions (1948-49, 1953-54, 1957-58, 1960-61, 1969-70, 1973-75)

How to Read the Charts

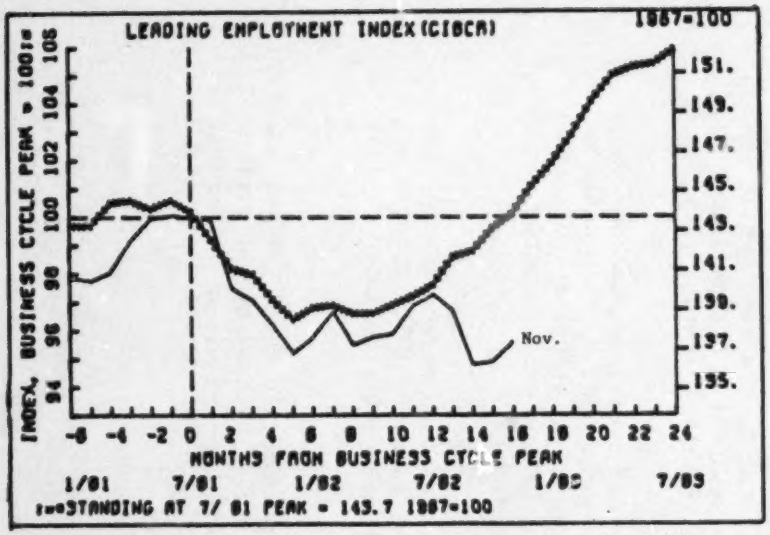
The horizontal time scale in each chart shows the number of months before (-) or after the business cycle peak (0). For the current cycle July 1981 is zero, January 1982 is Month 6, etc. The vertical scale on the left side for most series is an index with the three-month average centered on the business cycle peak date equal to 100. This three-month average is called the peak standing. For the current cycle, the figures plotted are indexes with the June to August 1981 average equal to 100. Each of the previous cycles are converted to indexes in the same way, and then the corresponding months are averaged for the six cycles, 1948-75.

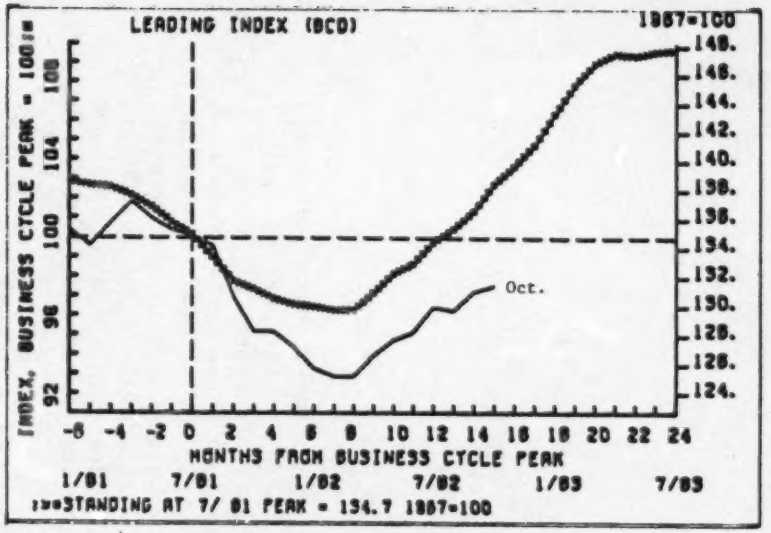
When the figures are percentages, as in the unemployment rate, the inflation rate or other growth rates, the peak standings are subtracted from rather than divided into the data, so that the level at the peak is zero and the scale represents differences from that level in percentage points. Quarterly series (e.g., GNP) are treated in the same way as monthly except that quarterly business cycle peak dates are used and each quarter is plotted as a horizontal line for three months.

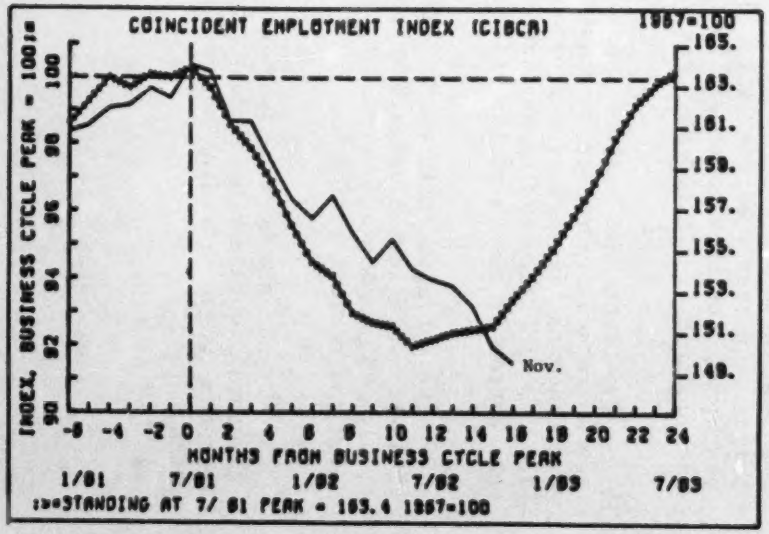
The right-hand scale applies to the current cycle, so that one can see where new figures or forecasts would be placed. Also, this scale shows how the averages for previous recessions would translate to current levels. The July 1981 peak standing for the current cycle is shown at the bottom of the chart for reference purposes.

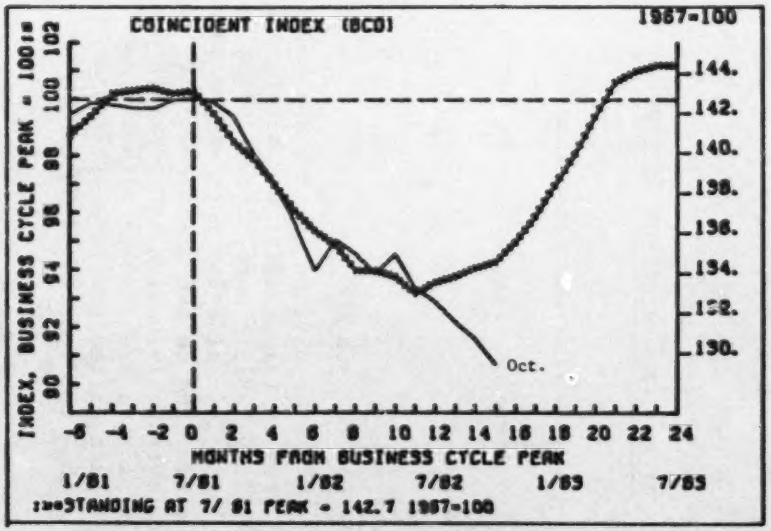
The averages include only six cycles rather than seven, because the 1980-81 cycle lasted only 18 months from peak (January 1980) to peak (July 1981). Averages extending beyond 18 months would begin to overlap with the current cycle.

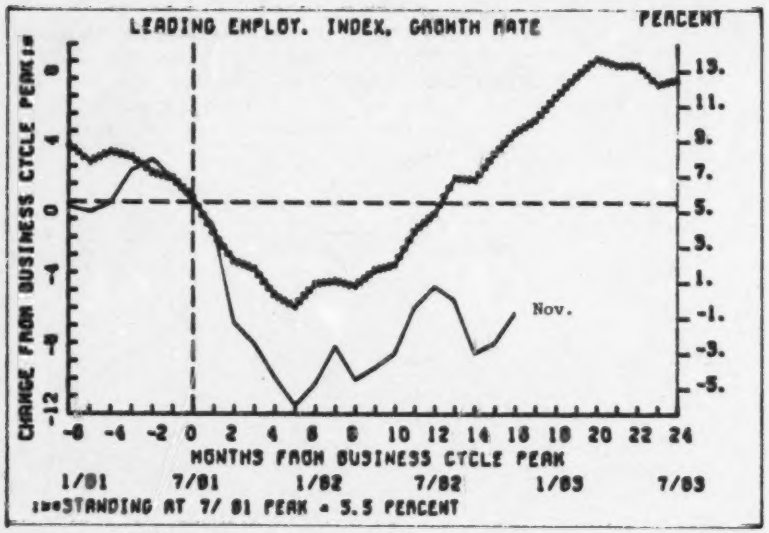
All the growth rates shown are six-month smoothed rates (or two-quarter smoothed), obtained by dividing the current month's index by the average for the twelve preceding months, and expressing the result as a compound annual rate.

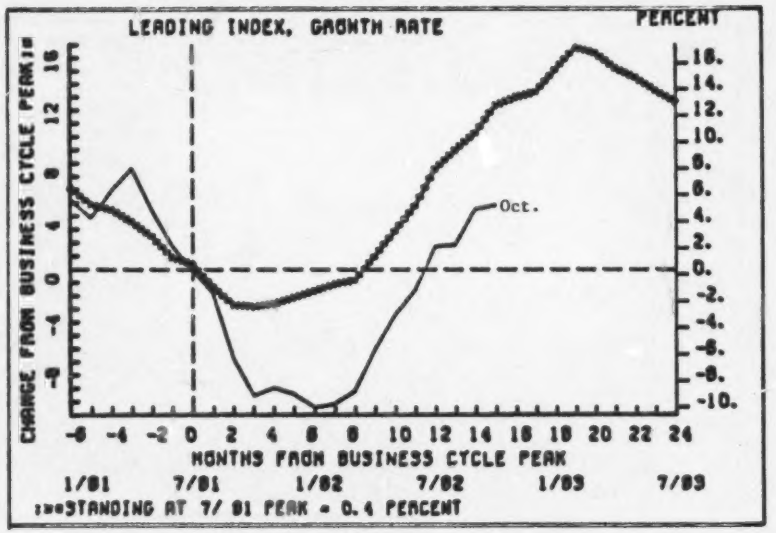

LEADING EMPLOYMENT INDEX (CIBCA)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
94 96 98 100 102 104 106
151.
149.
147.
145.
143.
141.
139.
137.
135.
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 143.7 1967=100

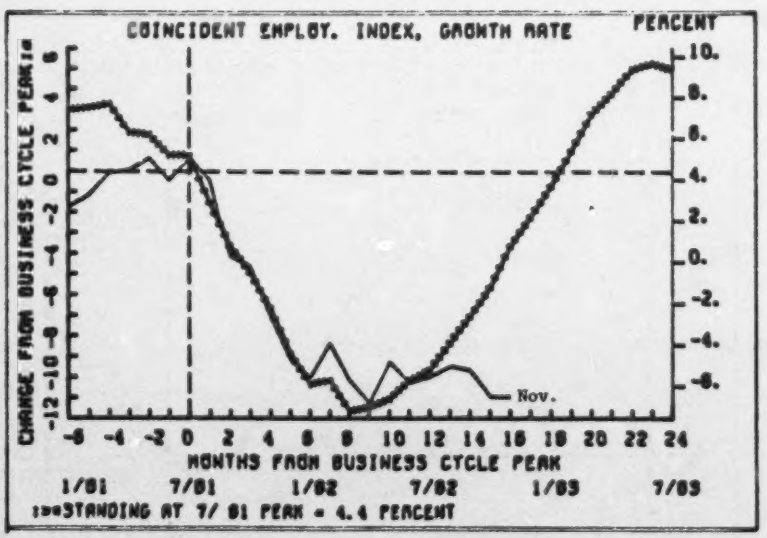

LEADING INDEX (BCD)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
92 96 100 104 108
148.
146.
144.
142.
140.
138.
136.
134.
132.
130.
128.
126.
124.
Oct.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 134.7 1967=100

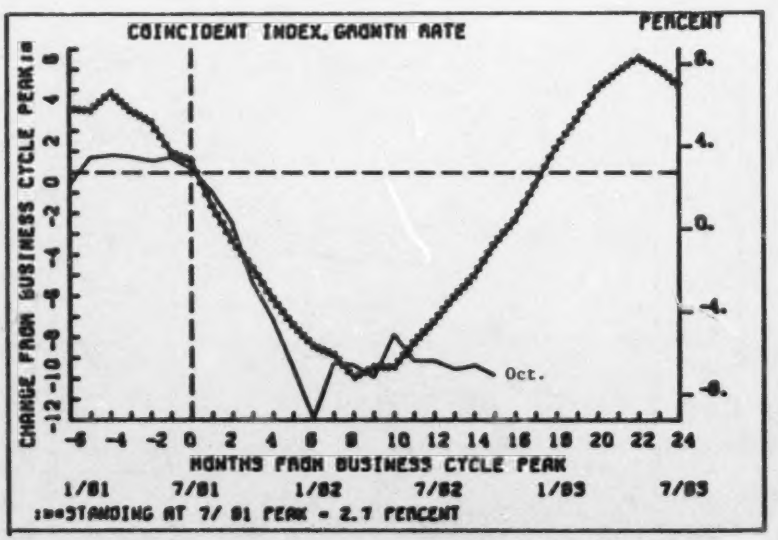

COINCIDENT EMPLOYMENT INDEX (CIBCA)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
90 92 94 96 98 100
165.
163.
161.
159.
157.
155.
153.
151.
149.
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 163.4 1967=100

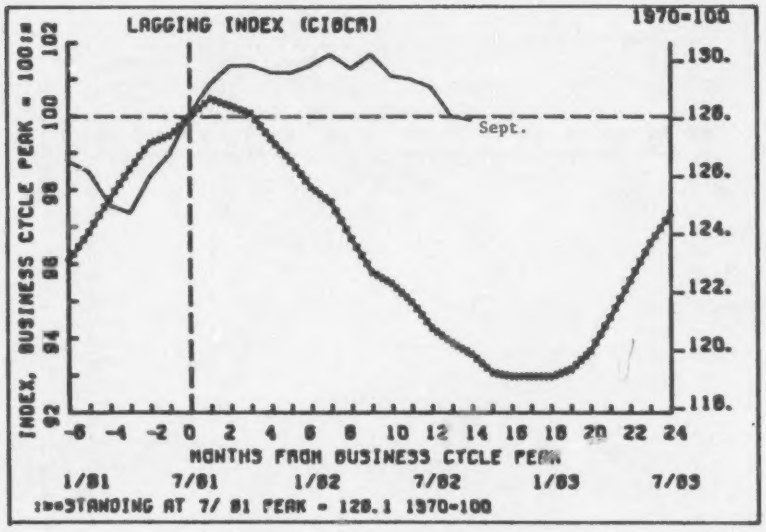

COINCIDENT INDEX (BCD)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
90 92 94 96 98 100 102
144.
142.
140.
138.
136.
134.
132.
130.
Oct.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 142.7 1967=100

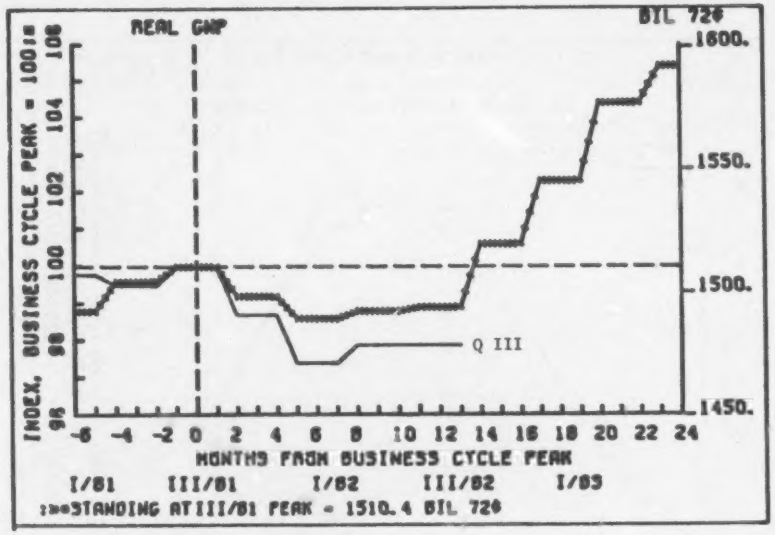

LEADING EMPLOY. INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
STANDING AT 7/ 81 PEAK = 5.5 PERCENT

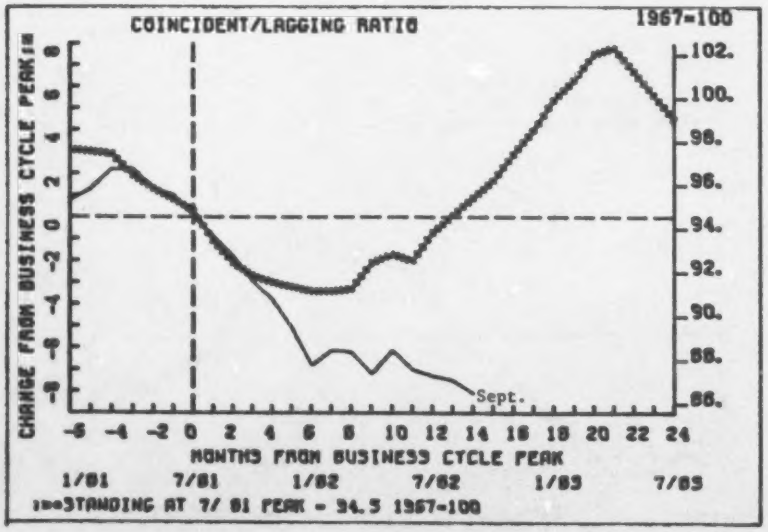

LEADING INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Oct.
STANDING AT 7/ 81 PEAK = 0.4 PERCENT

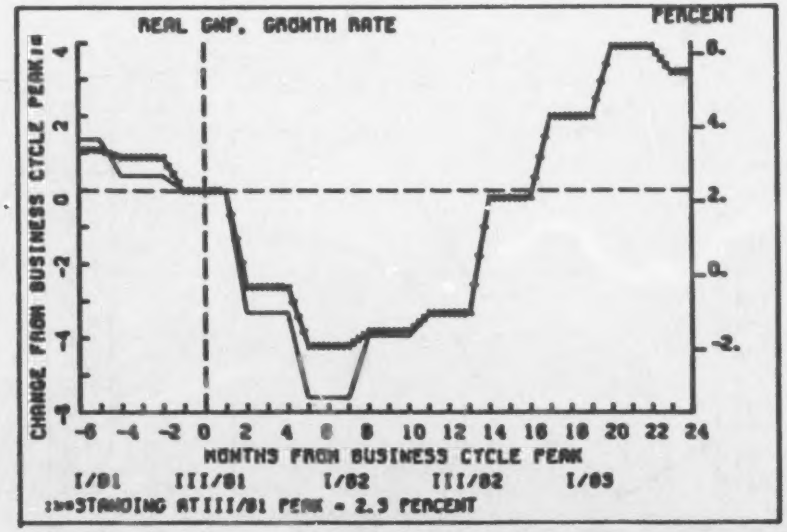

COINCIDENT EMPLOY. INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
STANDING AT 7/ 81 PEAK = 4.4 PERCENT

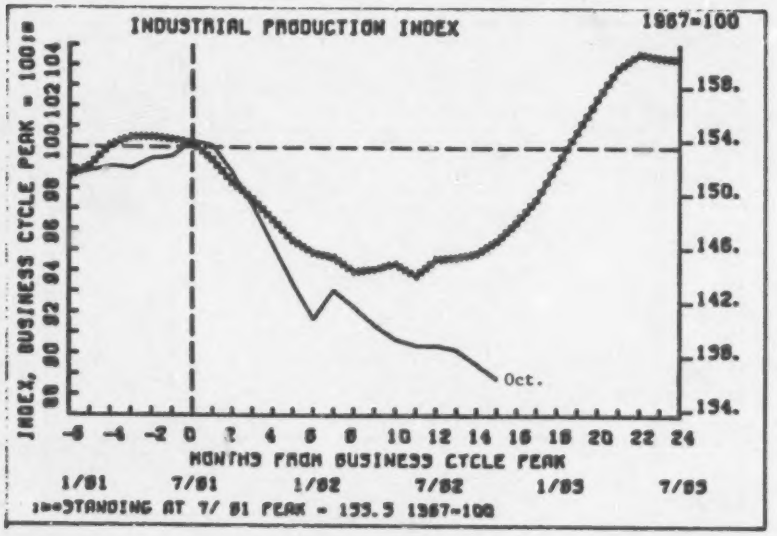

COINCIDENT INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Oct.
STANDING AT 7/ 81 PEAK = 2.7 PERCENT

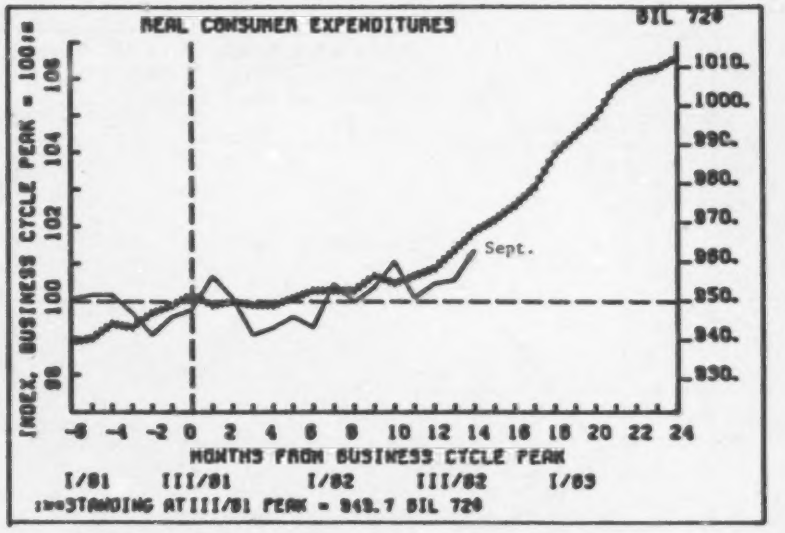

LAGGING INDEX (CIBCR)
1970=100
INDEX, BUSINESS CYCLE PEAK = 100
92 94 96 98 100 102
130. 128. 126. 124. 122. 120. 118.
Sept.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 128.1 1970=100

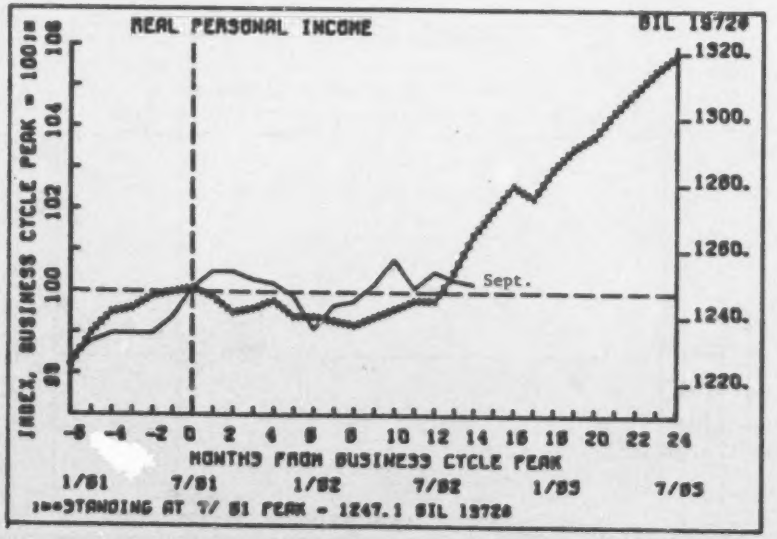

REAL GNP
BIL 72$
INDEX, BUSINESS CYCLE PEAK = 100
96 98 100 102 104 106
1600. 1550. 1500. 1450.
Q III
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83
STANDING AT III/81 PEAK = 1510.4 BIL 72$

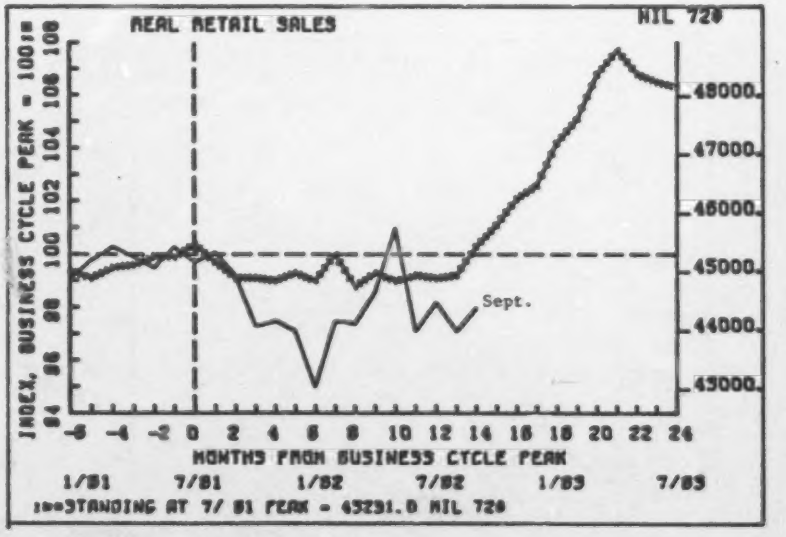

COINCIDENT/LAGGING RATIO
1967=100
CHANGE FROM BUSINESS CYCLE PEAK
-8 -6 -4 -2 0 2 4 6 8
102. 100. 98. 96. 94. 92. 90. 88. 86.
Sept.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 94.5 1967=100

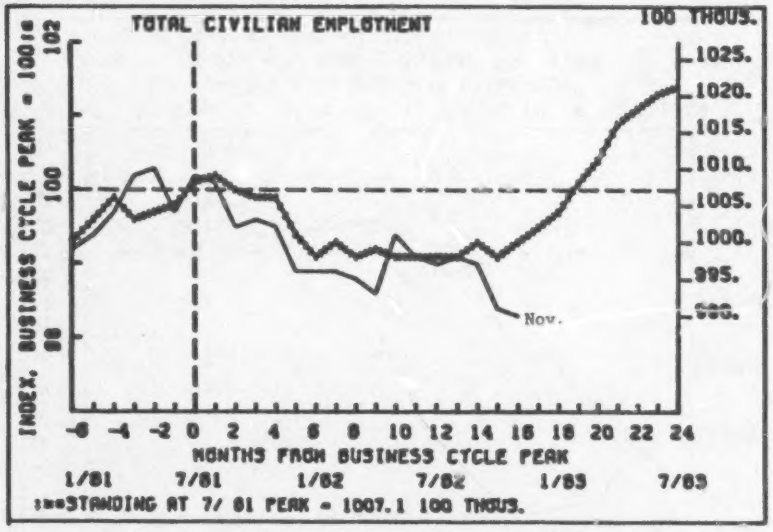

REAL GNP, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
-8 -6 -4 -2 0 2 4
6. 4. 2. 0. -2.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83
STANDING AT III/81 PEAK = 2.3 PERCENT

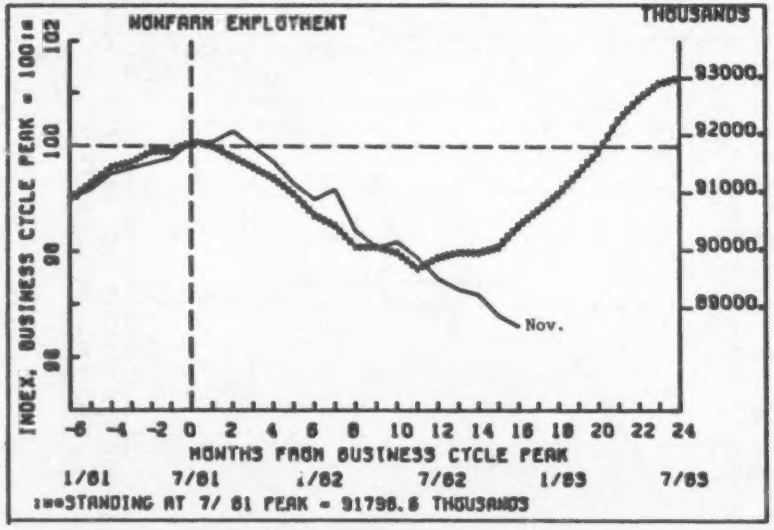

INDUSTRIAL PRODUCTION INDEX
1967=100
INDEX, BUSINESS CYCLE PEAK = 100:=
96 98 100 102 104
158.
154.
150.
146.
142.
138.
134.
Oct.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
:=STANDING AT 7/ 81 PEAK = 153.5 1967=100

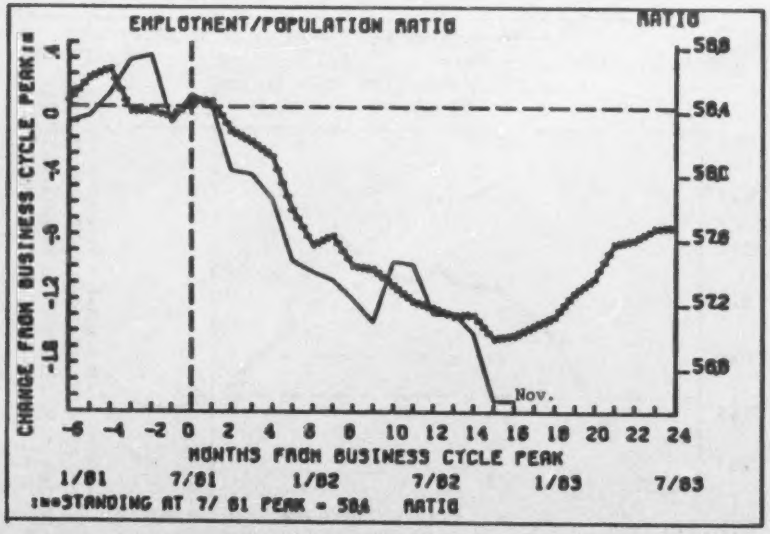

REAL CONSUMER EXPENDITURES
BIL 72$
INDEX, BUSINESS CYCLE PEAK = 100:=
96 98 100 102 104 106
1010.
1000.
990.
980.
970.
960.
950.
940.
930.
Sept.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83
:=STANDING AT III/81 PEAK = 949.7 BIL 72$

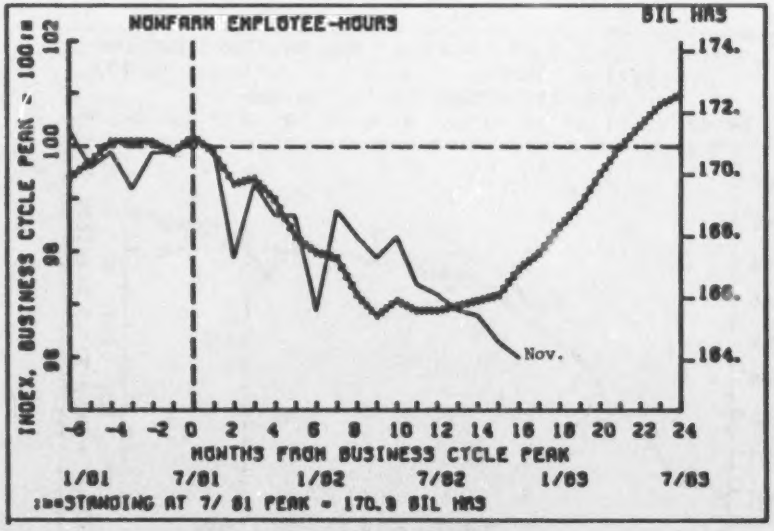

REAL PERSONAL INCOME
BIL 1972$
INDEX, BUSINESS CYCLE PEAK = 100:=
96 98 100 102 104 106
1320.
1300.
1280.
1260.
1240.
1220.
Sept.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
:=STANDING AT 7/ 81 PEAK = 1247.1 BIL 1972$

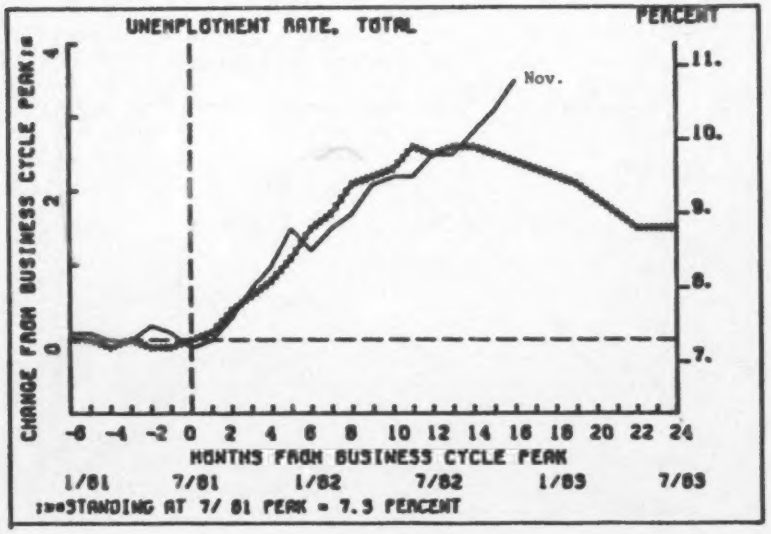

REAL RETAIL SALES
MIL 72$
INDEX, BUSINESS CYCLE PEAK = 100:=
94 96 98 100 102 104 106 108
48000.
47000.
46000.
45000.
44000.
43000.
Sept.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
:=STANDING AT 7/ 81 PEAK = 45231.0 MIL 72$

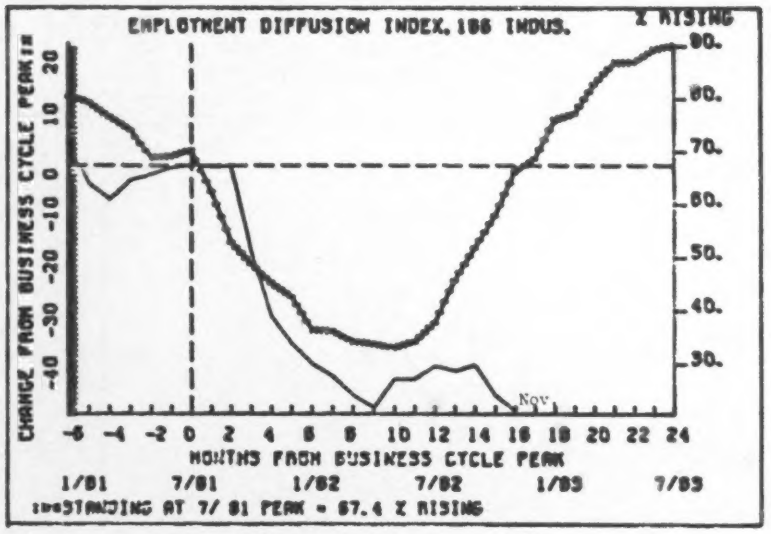

TOTAL CIVILIAN EMPLOYMENT
100 THOUS.
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
=STANDING AT 7/ 81 PEAK = 1007.1 100 THOUS.

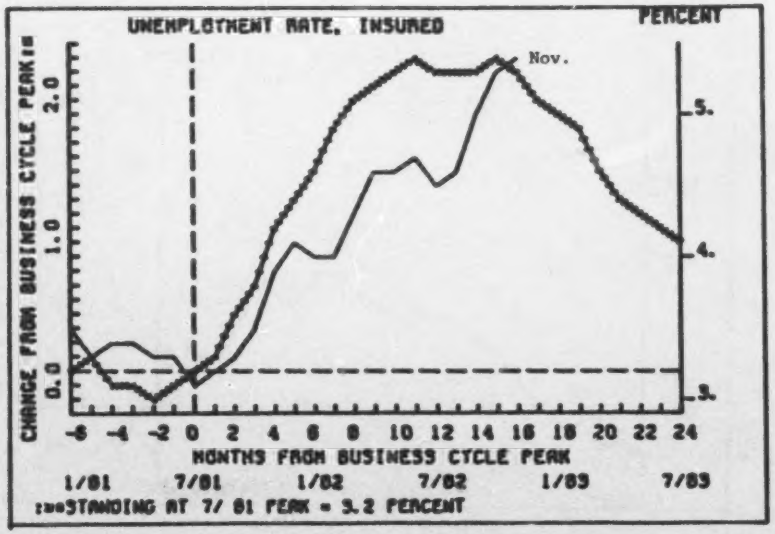

NONFARM EMPLOYMENT
THOUSANDS
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
=STANDING AT 7/ 81 PEAK = 91798.6 THOUSANDS

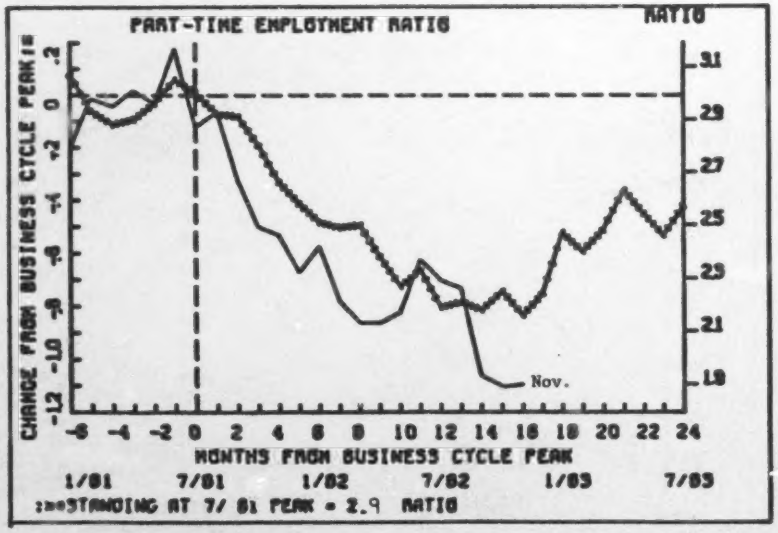

EMPLOYMENT/POPULATION RATIO
RATIO
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
=STANDING AT 7/ 81 PEAK = 58A RATIO

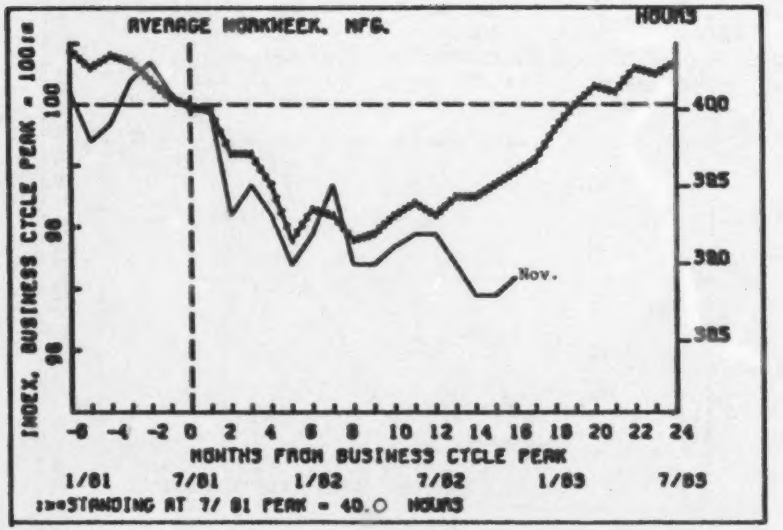

NONFARM EMPLOYEE-HOURS
BIL HRS
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
=STANDING AT 7/ 81 PEAK = 170.9 BIL HRS

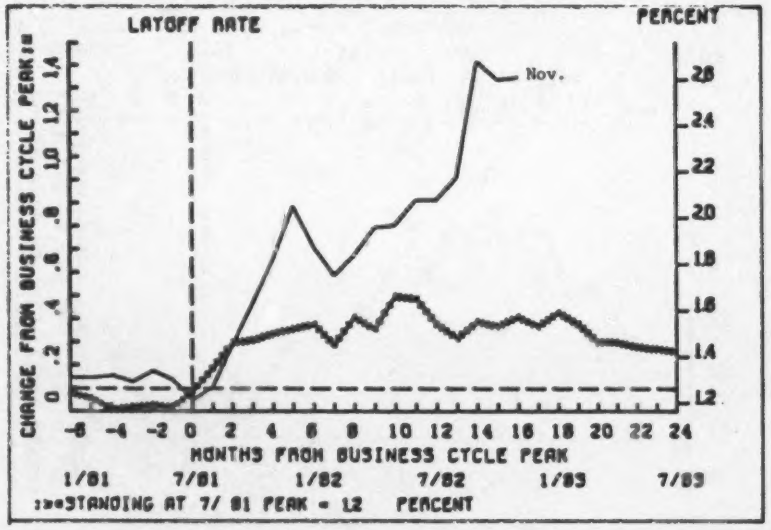

UNEMPLOYMENT RATE, TOTAL
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
Nov.
11.
10.
9.
8.
7.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 7.3 PERCENT

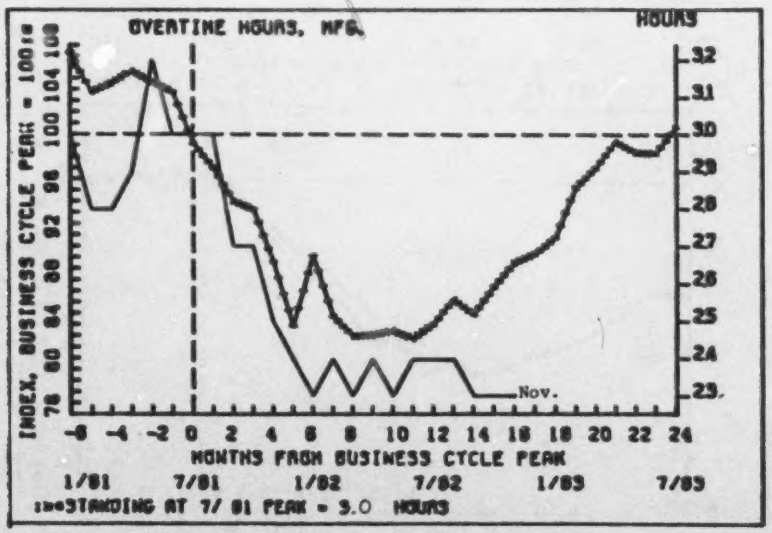

EMPLOYMENT DIFFUSION INDEX, 186 INDUS.
% RISING
CHANGE FROM BUSINESS CYCLE PEAK=0
Nov.
90.
80.
70.
60.
50.
40.
30.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 67.4 % RISING

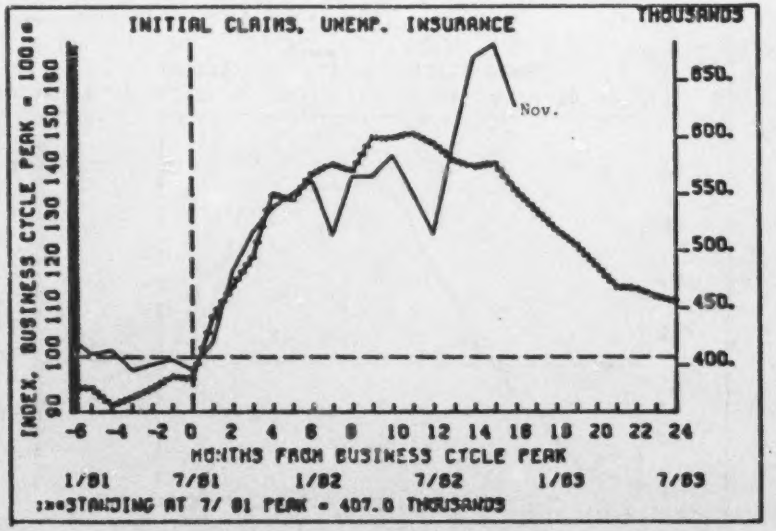

UNEMPLOYMENT RATE, INSURED
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
Nov.
5.
4.
3.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 3.2 PERCENT

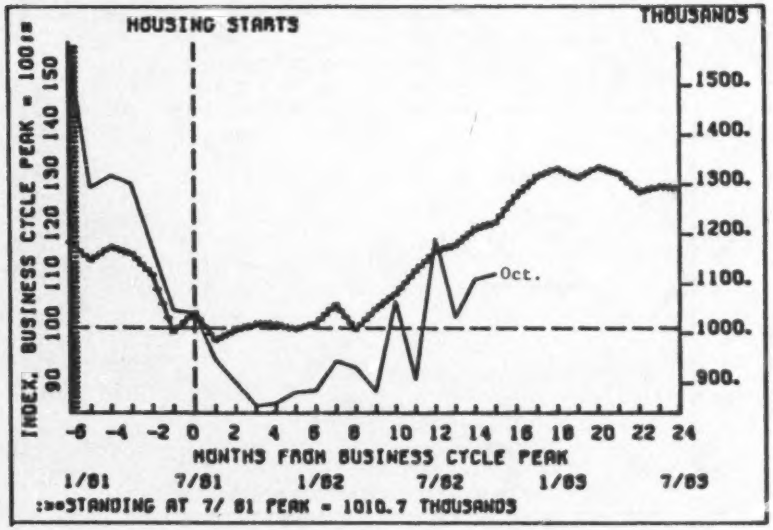

PART-TIME EMPLOYMENT RATIO
RATIO
CHANGE FROM BUSINESS CYCLE PEAK=0
Nov.
31
29
27
25
23
21
19
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 2.9 RATIO

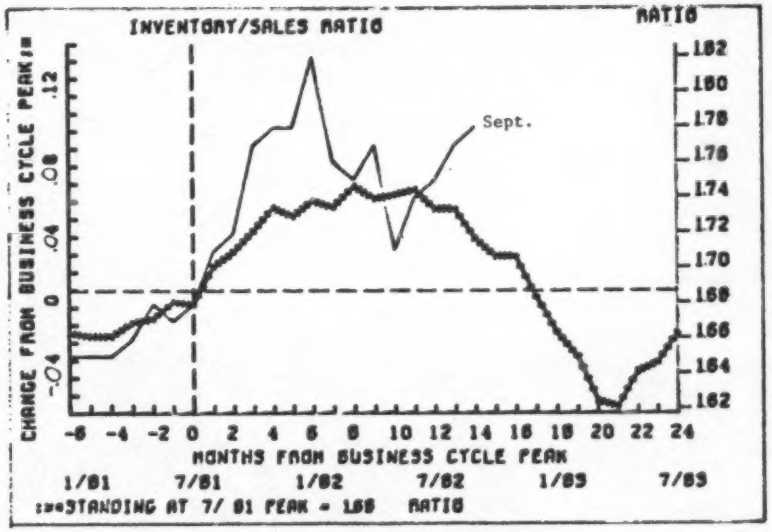

AVERAGE WORKWEEK, MFG.
HOURS
INDEX, BUSINESS CYCLE PEAK = 100
400
395
390
385
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 40.0 HOURS

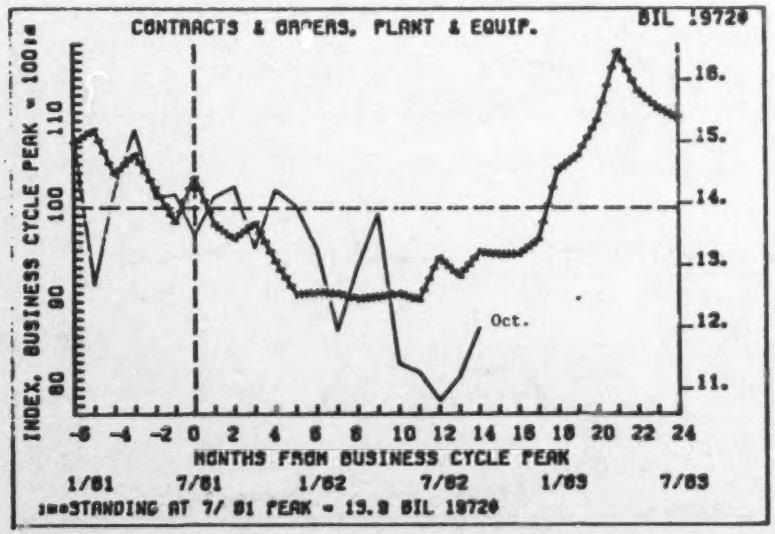

LAYOFF RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 1.2 PERCENT

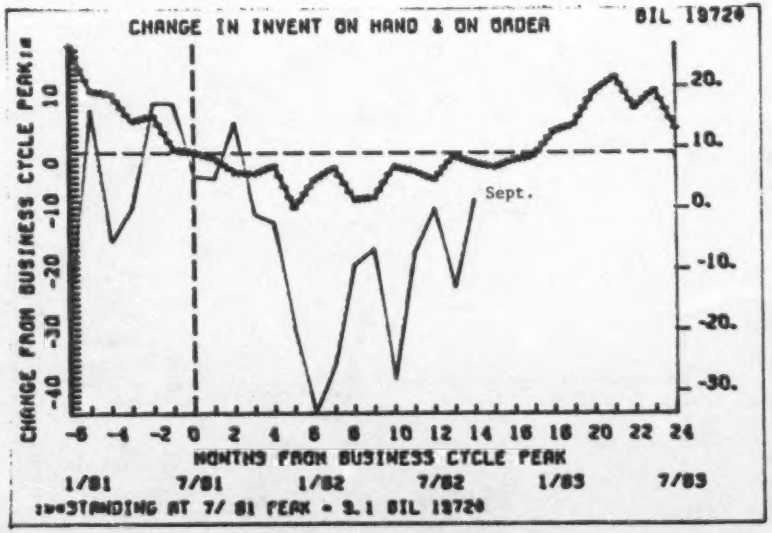

OVERTIME HOURS, MFG.
HOURS
INDEX, BUSINESS CYCLE PEAK = 100
32
31
30
29
28
27
26
25
24
23
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 3.0 HOURS

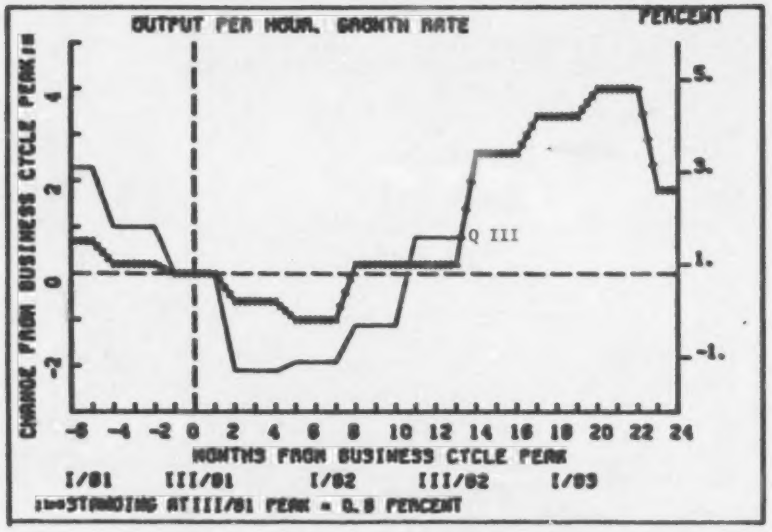

INITIAL CLAIMS, UNEMP. INSURANCE
THOUSANDS
INDEX, BUSINESS CYCLE PEAK = 100
850.
800.
550.
500.
450.
400.
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 407.0 THOUSANDS

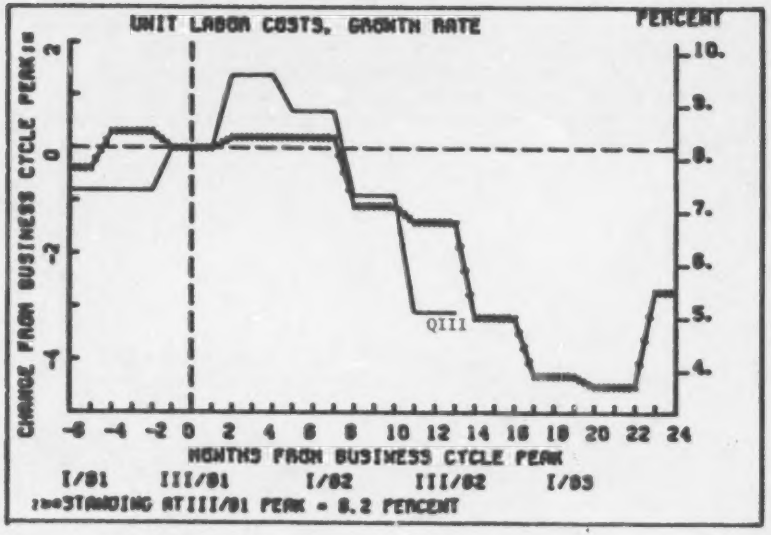

HOUSING STARTS
THOUSANDS
INDEX, BUSINESS CYCLE PEAK = 100
90 100 110 120 130 140 150
1500.
1400.
1300.
1200.
1100.
1000.
900.
Oct.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 1010.7 THOUSANDS

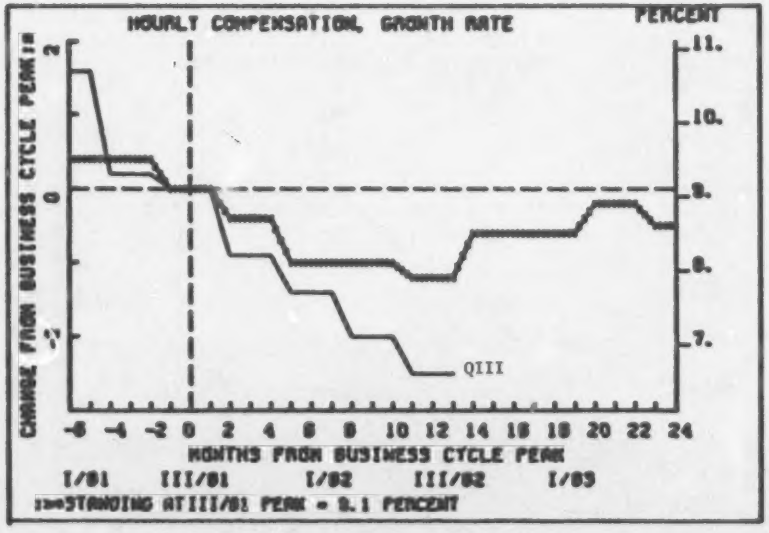

INVENTORY/SALES RATIO
RATIO
CHANGE FROM BUSINESS CYCLE PEAK
-.04 0 .04 .08 .12
1.82
1.80
1.78
1.76
1.74
1.72
1.70
1.68
1.66
1.64
1.62
Sept.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 1.68 RATIO

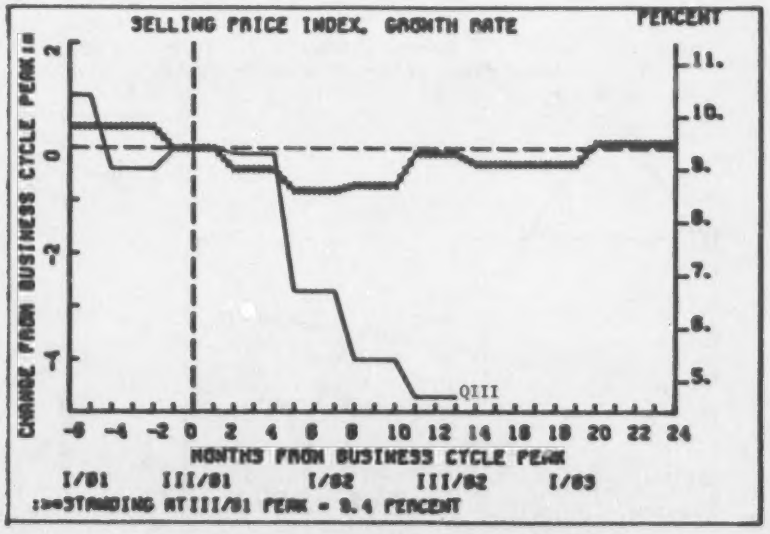

CONTRACTS & ORDERS, PLANT & EQUIP.
BIL 1972$
INDEX, BUSINESS CYCLE PEAK = 100
80 90 100 110
16.
15.
14.
13.
12.
11.
Oct.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 13.8 BIL 1972$

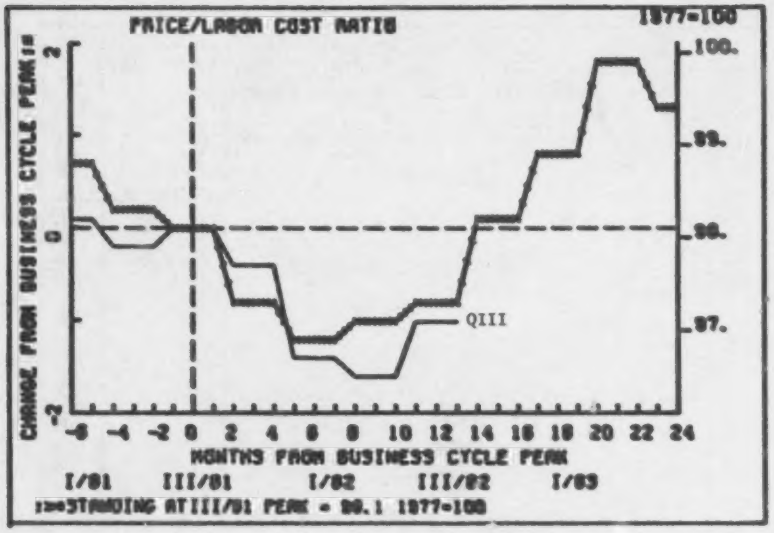

CHANGE IN INVENT ON HAND & ON ORDER
BIL 1972$
CHANGE FROM BUSINESS CYCLE PEAK
-40 -30 -20 -10 0 10
20.
10.
0.
-10.
-20.
-30.
Sept.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 9.1 BIL 1972$

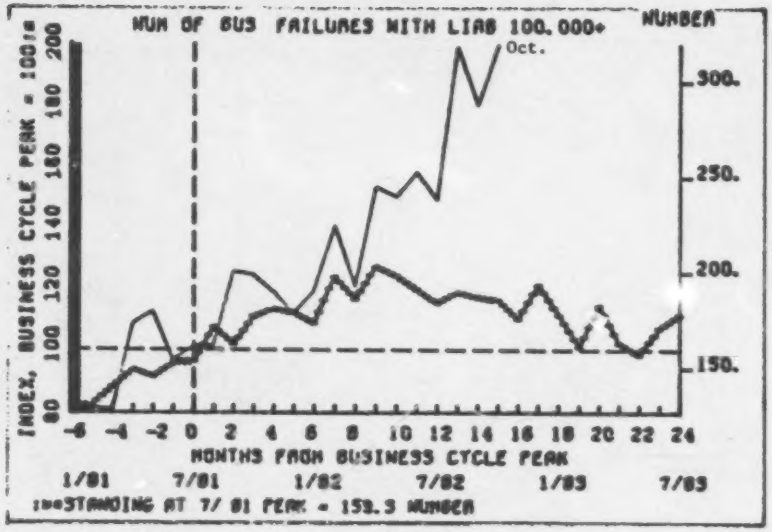

OUTPUT PER HOUR, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
I/81 III/81 I/82 III/82 I/83
Q III
0=STANDING AT III/81 PEAK = 0.8 PERCENT

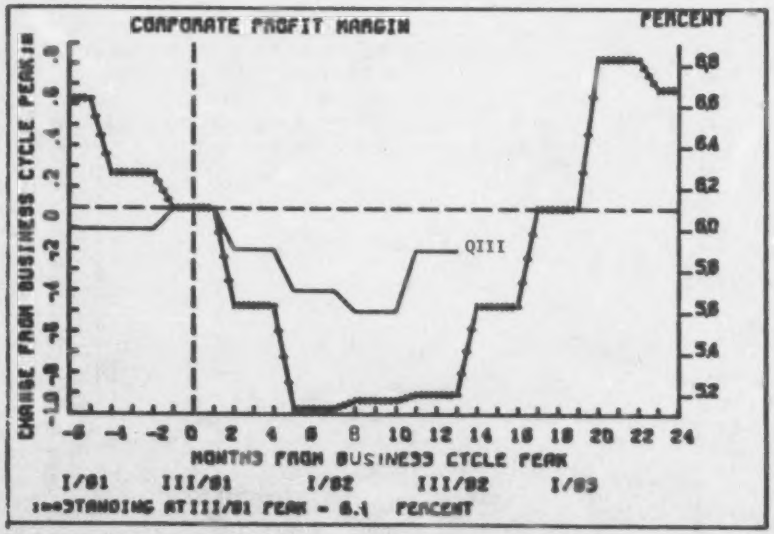

UNIT LABOR COSTS, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
I/81 III/81 I/82 III/82 I/83
QIII
0=STANDING AT III/81 PEAK = 8.2 PERCENT

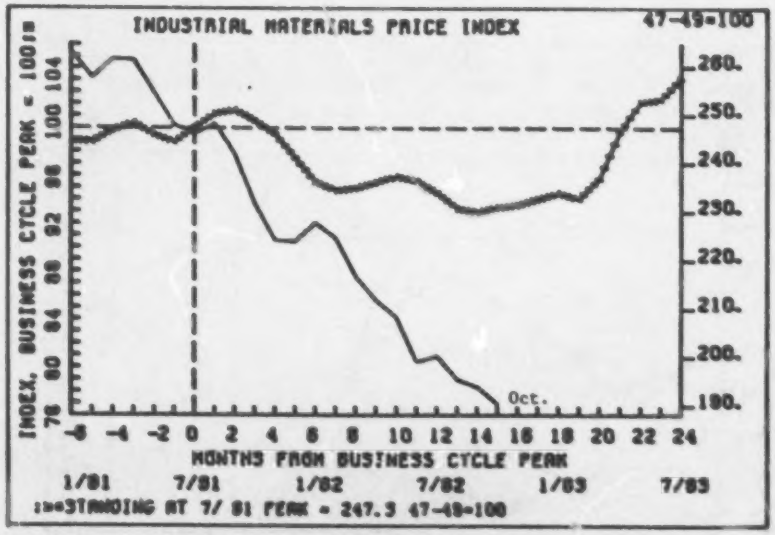

HOURLY COMPENSATION, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
I/81 III/81 I/82 III/82 I/83
QIII
0=STANDING AT III/81 PEAK = 9.1 PERCENT

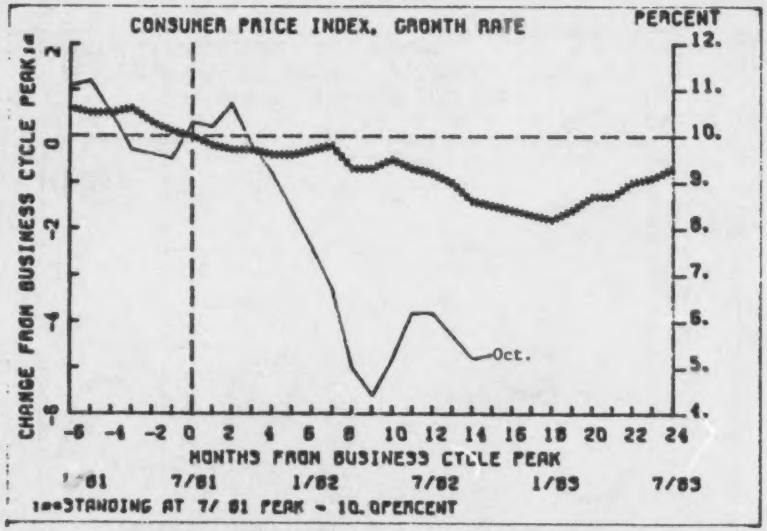

SELLING PRICE INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
I/81 III/81 I/82 III/82 I/83
QIII
0=STANDING AT III/81 PEAK = 9.4 PERCENT

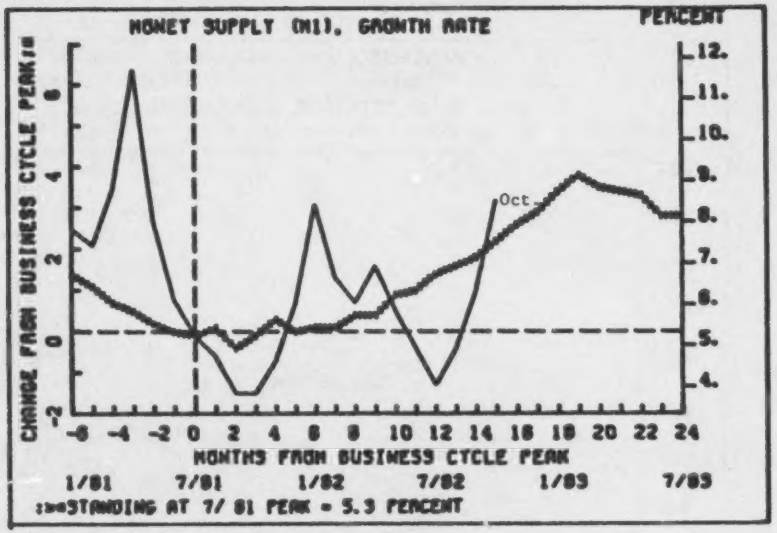

PRICE/LABOR COST RATIO
1977=100
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83
QIII
1=STANDING AT III/81 PEAK = 98.1 1977=100

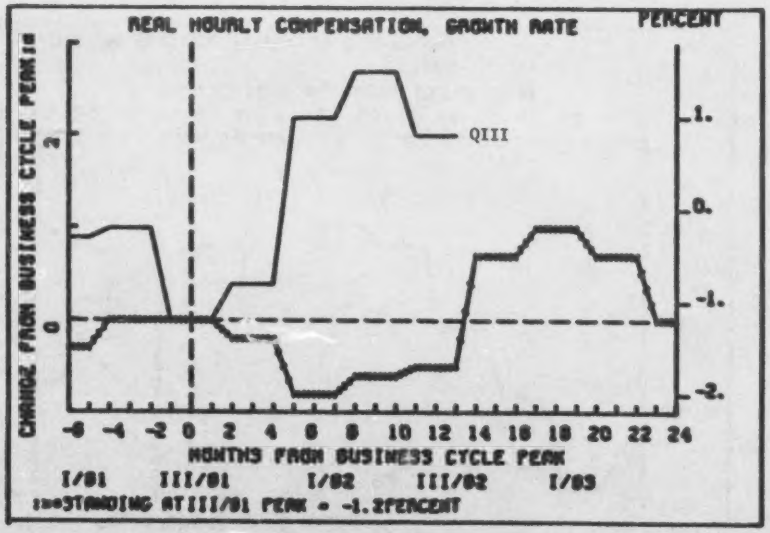

NUM OF BUS FAILURES WITH LIAB 100,000+
NUMBER
INDEX, BUSINESS CYCLE PEAK = 100=
Oct.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
1=STANDING AT 7/ 81 PEAK = 159.3 NUMBER

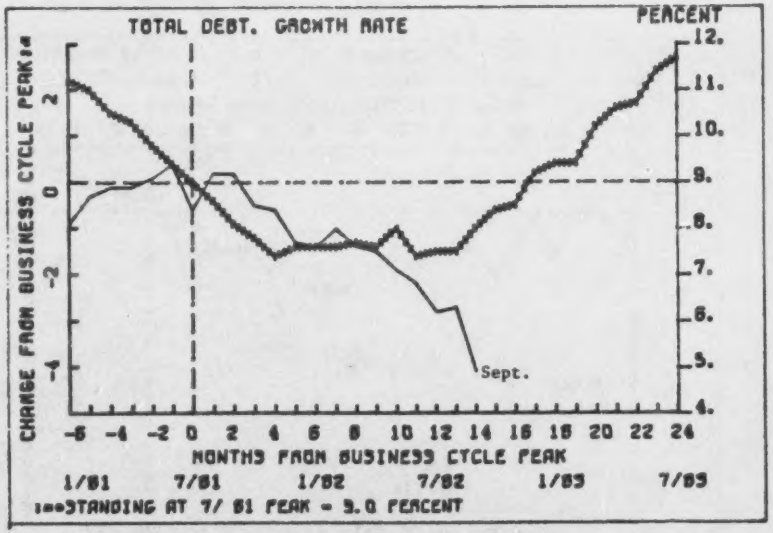

CORPORATE PROFIT MARGIN
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83
QIII
1=STANDING AT III/81 PEAK = 6.4 PERCENT

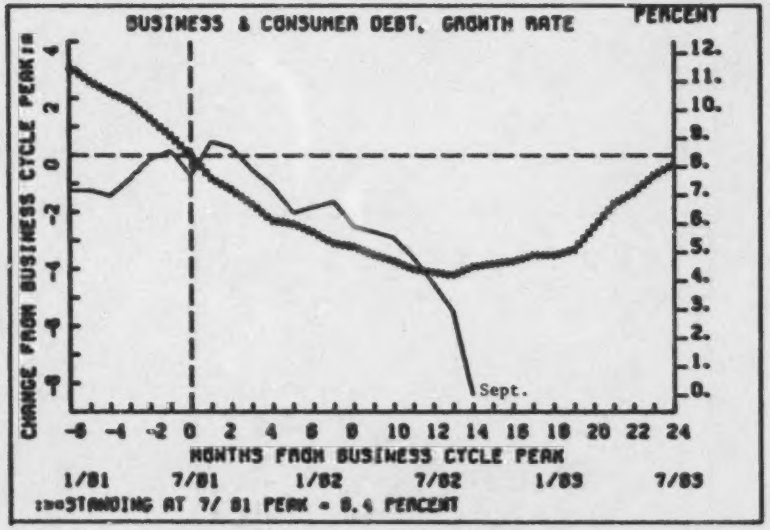

INDUSTRIAL MATERIALS PRICE INDEX
47-49=100
INDEX, BUSINESS CYCLE PEAK = 100=
Oct.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
1=STANDING AT 7/ 81 PEAK = 247.3 47-49=100

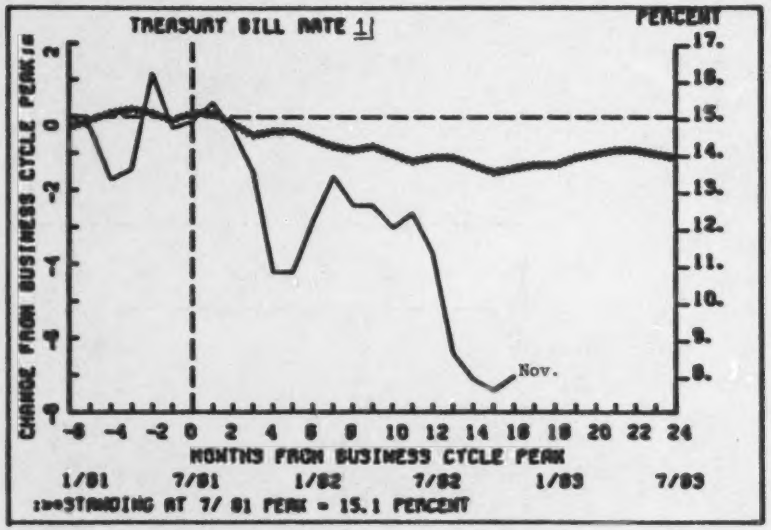

CONSUMER PRICE INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
Oct.
I/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 10.0PERCENT

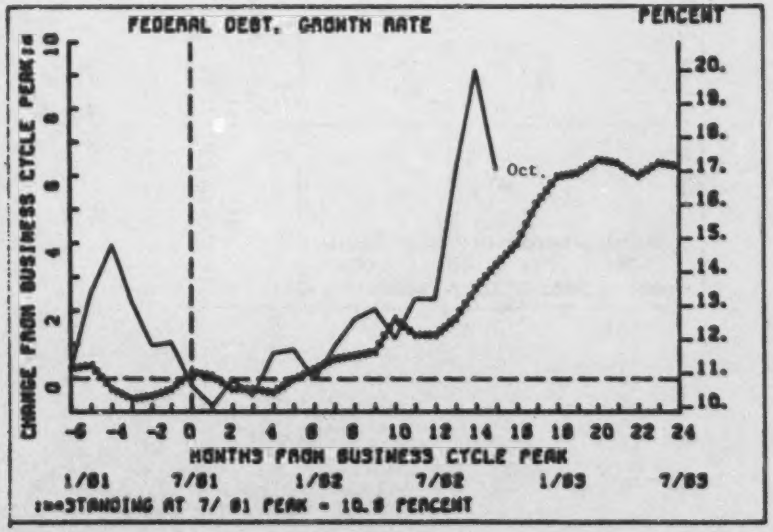

MONEY SUPPLY (M1), GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
Oct.
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 5.3 PERCENT

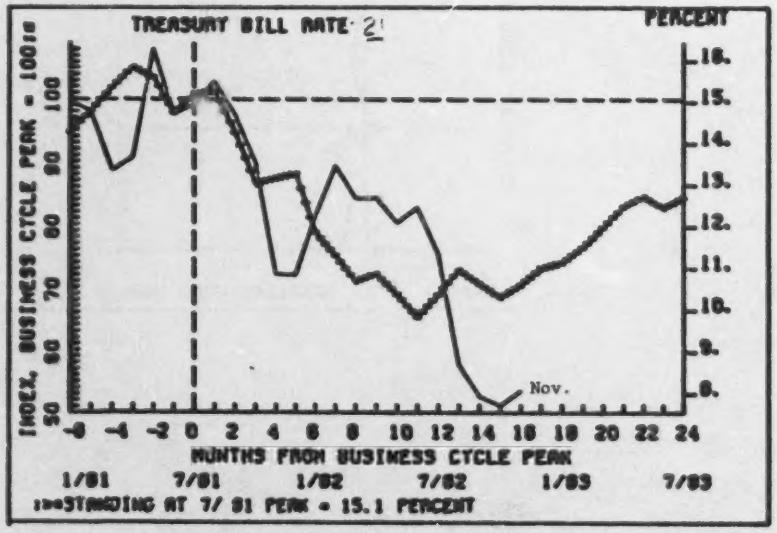

REAL HOURLY COMPENSATION, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
QIII
I/81 III/81 I/82 III/82 I/83
STANDING AT III/81 PEAK = -1.2PERCENT


TOTAL DEBT, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
Sept.
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 9.0 PERCENT


BUSINESS & CONSUMER DEBT, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
Sept.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 8.4 PERCENT

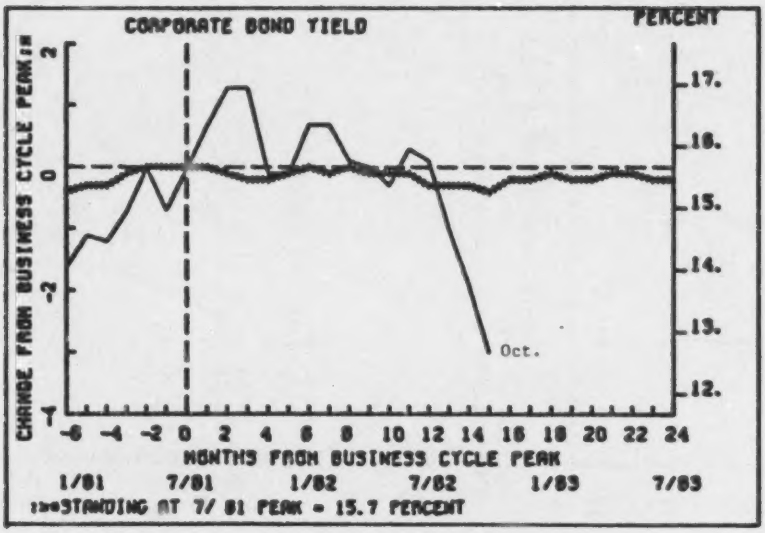

TREASURY BILL RATE 1/
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
Nov.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 15.1 PERCENT

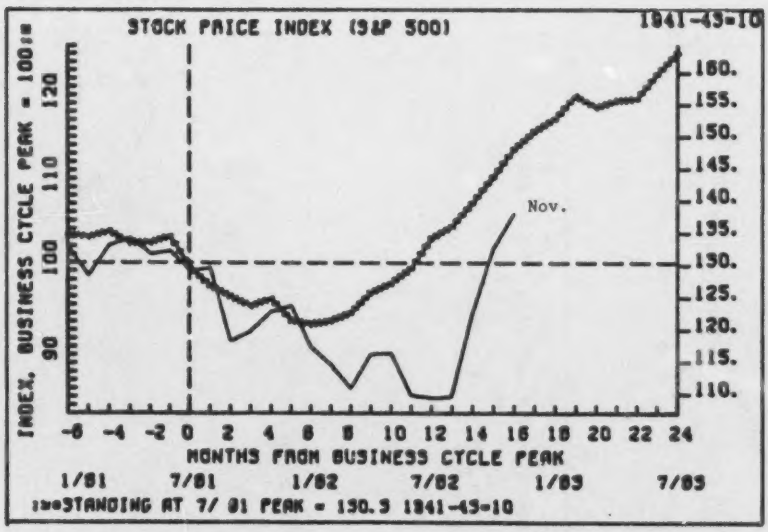

FEDERAL DEBT, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
Oct.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 10.8 PERCENT


TREASURY BILL RATE 2/
PERCENT
INDEX, BUSINESS CYCLE PEAK = 100=0
Nov.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 15.1 PERCENT

1/ Percentage points change.

2/ Percentage change.


CORPORATE BOND YIELD
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
2
0
-2
-4
17.
16.
15.
14.
13.
12.
Oct.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 15.7 PERCENT


STOCK PRICE INDEX (S&P 500)
1941-43=10
INDEX, BUSINESS CYCLE PEAK = 100
90
100
110
120
180.
155.
150.
145.
140.
135.
130.
125.
120.
115.
110.
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 130.3 1941-43=10

ABOUT THE CENTER FOR INTERNATIONAL BUSINESS CYCLE RESEARCH

The Rutgers Center for International Business Cycle Research (CIBCR), established in 1979, specializes in the study of trends and fluctuations in economic growth and inflation in the United States and other countries. The analysis contained in this report is the result of its ongoing research programs on domestic U.S. business cycles. Readers are invited to submit comments and suggestions concerning this publication. In addition, readers wishing to secure data compiled by the Center on the six other major industrial countries or copies of research reports may do so by communicating with:

Center for International Business Cycle Research
Ackerson Hall, Rutgers University
Newark, N.J. 07102
Telephone: (201) 648-5217

ABOUT THIS REPORT

RECESSION-RECOVERY WATCH is a bimonthly report designed to analyze current business cycle trends in terms of previous recession or recovery patterns.

This report was begun in August 1979, under the direction of Dr. Geoffrey H. Moore, following the methodology for measuring recessions developed at the National Bureau of Economic Research. Although no forecasts are made, the materials in this report do permit glimpses into the future: first by analyzing the behavior of various leading indicators; second, by indicating what is likely to happen in terms of previous recessions and recoveries.

The leading indicators used in this report are relevant to future output and employment because they represent actions taken, like the placing of orders, that will result in future output, or because they reflect factors, like profits, that influence future decisions on output. The record of what happens during the later stages of business cycles is relevant because of the family resemblance among successive cycles, a resemblance that has its origin in the processes by which business cycles are generated. Every business cycle has its own surprises, partly because of policy actions taken, but many developments are not surprising, having occurred many times before. The historical comparisions contained in this report help one anticipate what is typical and distinguish it from the unusual.

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RECESSION - RECOVERY WATCH...

Published by the **Center for International Business Cycle Research,**
Graduate School of Management, **Rutgers University,** Newark, NJ 07102

Dr. Geoffrey H. Moore
Director

Vol. 5, No. 1
February 1983

SUMMARY

December 1982 is a good bet for the business cycle trough month, and the fourth quarter of 1982 the likely trough quarter. The evidence comes mainly from the leading indicators (e.g., commitments) and the lagging indicators (e.g., costs)--the former by going up, the latter by coming down. The coincident indicators--those that measure aggregate economic activity and upon which the ultimate decision on the turning point rests--leveled off in December. Our coincident employment index, based on five comprehensive measures of employment and unemployment, rose in Januarv. Some indicators are suggesting a recovery of about average strength, others point to something less than average.

* * * * * * * * * * * * * *

Cost Reductions: A Positive Force

This recession may become known as one in which costs got under control. Every recession has some effect on costs of production. That is one reason why they are recessions. Cost reduction is likely to leave someone unemployed. But cost reduction also paves the way for recovery, because when costs are cut more than prices, the profit outlook improves. And the profit outlook has clearly improved since mid-1982 (see Chart 19). This in turn makes it more feasible to build up depleted inventories, resume postponed investment projects, finance additions or renovations, and start up new business enterprises -- in other words, to undertake the new commitments that are represented in the leading indicators.

In the 17 months of this recession (July 1981-December 1982) costs of materials have declined more than in any of the preceding seven recessions over the same period of time, as Table 1 shows.[1] The cost of borrowing, both short-term and long-term, has also declined more than in any of the seven preceding recessions. Labor costs have not declined, but their rate of increase has been cut more than in the average previous recession. This reflects a close to average increase in the growth of productivity and a bigger than average reduction in the rate of gain in hourly compensation.

These reductions in the rate of cost inflation have made possible -- and in some cases have been induced by -- a

[1] Data in some of the charts are a month more up-to-date than in Table 1.

sharp decline in the rate of price inflation. This is a classic function of recessions. Initially, prices are cut more than costs; costs are usually a lagging indicator. Subsequently, costs are cut more than prices, which improves profit margins, and makes them a leading indicator. The rate of inflation in consumer prices has declined more in this recession than in any of the previous seven. Similarly, the rate of increase in the index of selling prices of nonfarm business enterprise has declined more than in all but one of the seven recessions, that of 1948-49. But in recent quarters the relationship of prices to costs has begun to change in a direction favorable to economic recovery.

Great Recoveries from Great Recessions Grow

One of the rules of business cycle history is that deeper than average recessions generate greater than average corrective forces. It is a rule that applies especially to the volume of output and particularly to the output of goods (rather than services.) Also, it applies to the initial rate of recovery, say for the first year or so. Table 2 brings together some of the facts about it.

The relationship can be seen in the behavior of the index of industrial production and in the goods output component of GNP. Goods output constituted 45% of total GNP in 1982, not a large enough fraction to make total GNP follow the rule consistently. Nevertheless it is one factor making for a substantial rate of recovery in 1983, since the recession in goods output and in industrial production has been somewhat deeper than average. Chart A shows how various assumed rates of recovery, ranging from 3 to 5% between the fourth quarter of 1982 and fourth of 1983, compare with the average pattern of recovery in real GNP during the four sharp recessions of 1949, 1954, 1958, and 1975.

Three percent, which is the rate projected in the Economic Report of the President, looks conservative. Five to seven percent would be more in line with past experience.

Waiting for the Second Signal

If the business cycle trough did arrive in December our initial signal of recovery (July 1982) anticipated it by five months, an unusually long interval (see Chart B). The longest previous lead at troughs was two months, and that was back in 1949. Usually the first signal, which is triggered by a growth rate of of at least one percent in the Commerce Department's leading index, has lagged the trough by a month or two. The second signal of recovery, which helps to confirm the event, has lagged the trough by five or six months in previous recoveries, and it has not arrived yet. It is triggered by continued strong growth in the leading index, which has occurred, and by at least one percent growth in the coincident index, which has not occurred. The December growth rate in the leading index was 7.0%, which is well above the 4.3% level required by the system. The coincident index rate was -6.4%.

The leading and coincident employment indexes, now available for January, suggest that the Commerce indexes will improve in January, but not reach the second signal mark. The January growth rates for the employment indexes are 3.7% for the leading, 1.9% for the coincident.

Is Experience a Good Teacher?

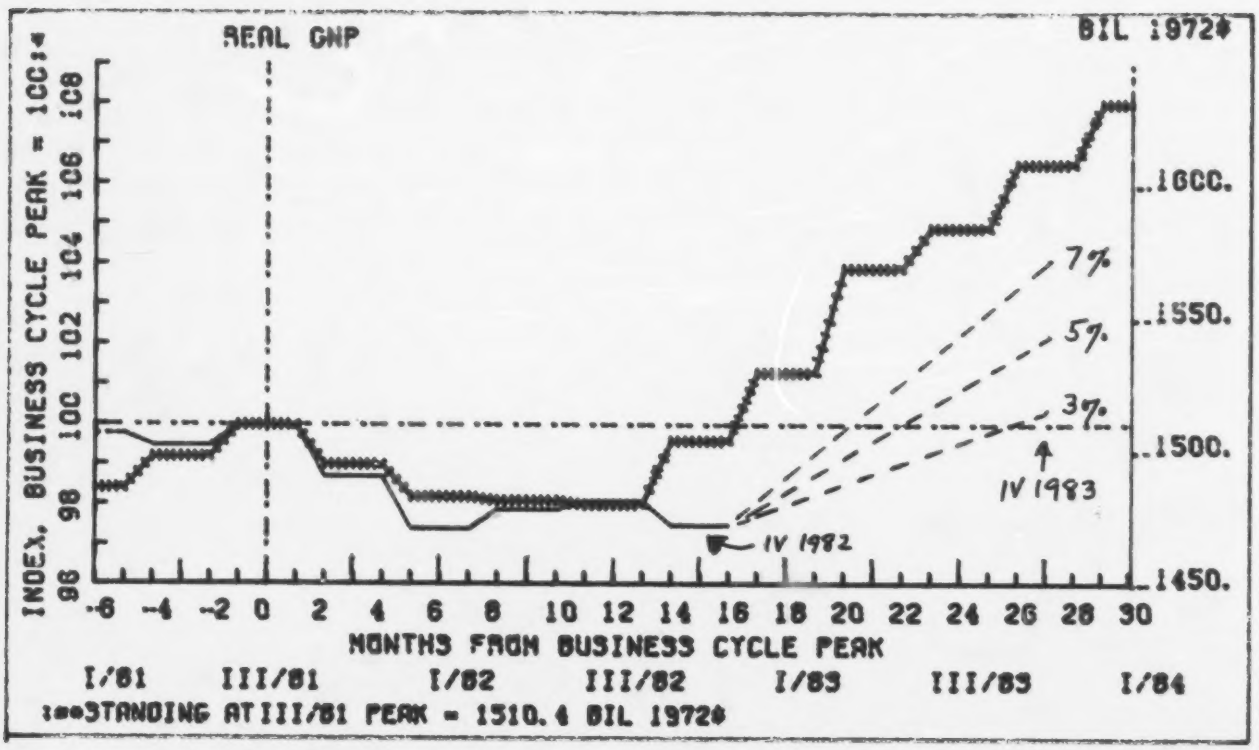
Recession-Recovery Watch is founded on the premise that previous business cycles contain information useful in appraising the current cycle and prospects for the future. Cycles repeat themselves to some degree, so what happened in previous cycles as they unfolded may help us anticipate what will happen next

TABLE 2 DEPTH OF RECESSION AND SPEED OF RECOVERY

Recession	Real GNP		Real Goods Output		Industrial Production	
	Recession Decline (%)	Recovery Rate (%)	Recession Decline (%)	Recovery Rate (%)	Recession Decline (%)	Recovery Rate (%)
1948-49	1.5	13.3	4.9	15.6	10.1	27.7
1953-54	3.2	7.4	7.5	9.8	9.4	14.0
1957-58	3.2	8.4	6.8	11.2	12.6	20.8
1960-61	1.2	7.0	5.1	10.2	8.6	13.3
1969-70	1.0	4.7	4.0	4.6	6.8	6.2
1973-75	5.7	6.7	8.8	9.7	14.6	15.2
1980-80	2.5	3.2	3.5	5.7	8.3	9.7
1981-82	2.6	6.2est.	6.1	8.7est.	11.9	15.6est.
Average, 1948-80	2.6	7.2	5.8	9.5	10.1	15.3
1953-80	2.8	6.2	6.0	8.5	10.1	13.2
Correlation (1953-80)	$r=.31$; $r^2=.09$		$r=.74$; $r^2=.55$		$r=.77$; $r^2=.59$	

Note: The recession decline is measured from the high to low quarters in the series (or high-low months in industrial production). The recovery rate is measured from the business cycle trough quarter (or month) to four quarters (or twelve months) later. The estimated recovery rates for 1982-83 assume that the business cycle trough quarter (month) was IV 1982 (December 1982) and are based on the regressions fitted to the period 1953-80. The independent variable is the recession decline.

Chart A PATTERNS OF CURRENT AND PREVIOUS RECESSIONS

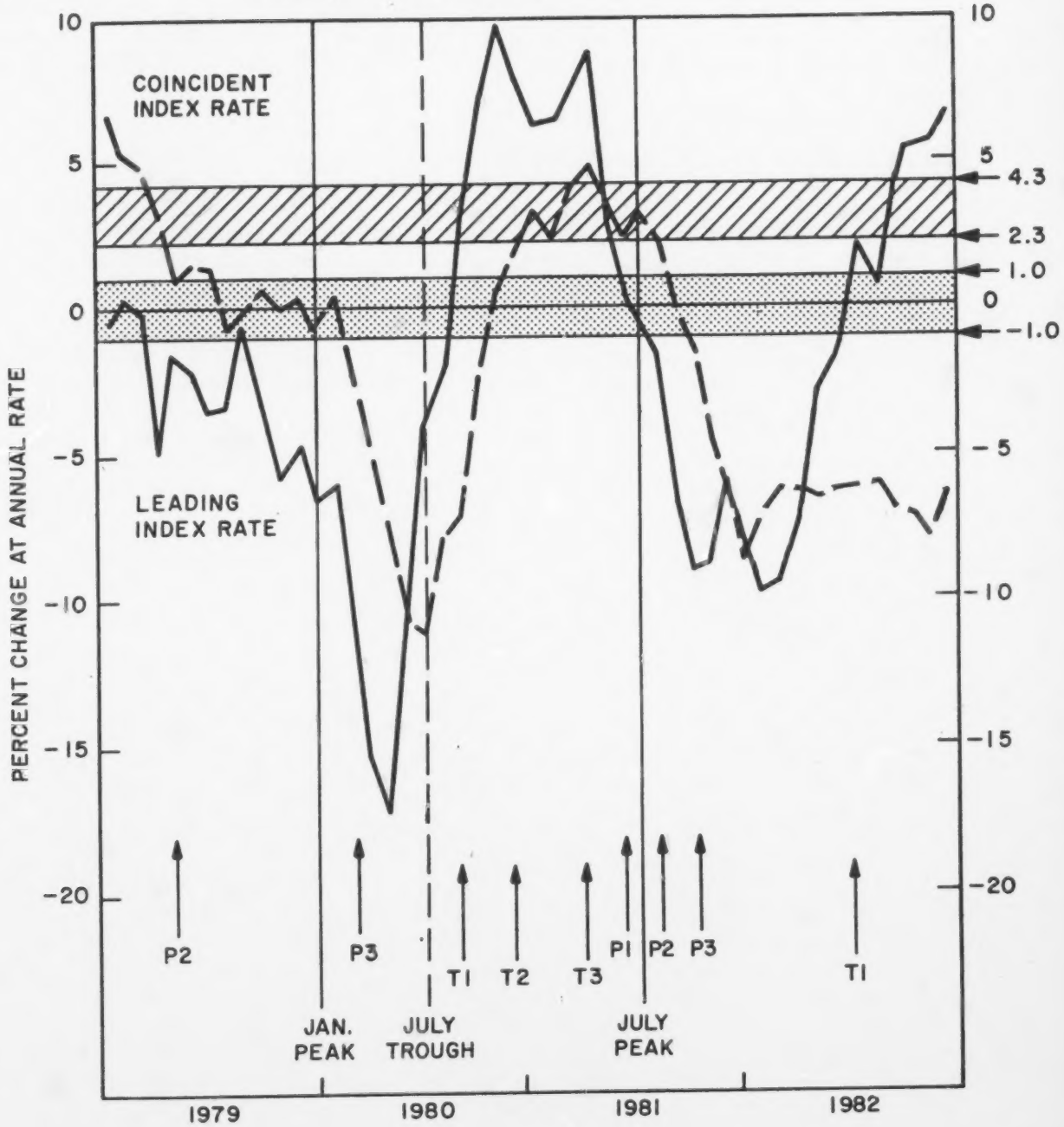


Average, 4 Sharp Recessions (1948-49, 1953-54, 1957-58, 1973-75)

Current Recession (1981-82)

Chart B

Recession and Recovery: Sequential Signals



in the current cycle. The leading indicators are selected not only because of their logical connection with subsequent events, but also because they have exhibited leading tendencies in previous cycles. Relationships among economic variables are persistent, some more than others.

A test of this general proposition can be made with the figures in Table 1. How closely are the average changes in the first 17 months of previous recessions correlated with the changes in the first 17 months of the current recession? The answer is: quite closely. Taking all of the 50 variables in the table together, the correlation (r^2) is .74. This means that about three-fourths of the variation among the declines in the different variables during the 1981-1982 recession is associated with their variation during the average preceding recession. The correlation holds within each of the groups of variables shown in the table as well, as follows:

		r^2
I	Composite Indexes	.63
II	Output, Income and Sales	.97
III	Employment and Unemployment	.59
IV	Investment Commitments and Inventories	.44
V	Productivity, Wages, Costs, Prices and Profits	.99
VI	Money, Credit, Interest Rates and Stock Prices	.89
	All Groups	.74

The moral? Experience is a great teacher.

TABLE 1

RECESSION/RECOVERY STATUS UP TO 17 MONTHS AFTER THE BUSINESS CYCLE PEAK

PERCENTAGE ABOVE (+) OR BELOW (-) THE PRECEDING BUSINESS CYCLE PEAK, UNLESS OTHERWISE NOTED

		MONTHS AFTER BUSINESS CYCLE PEAKS	THREE MILD RECESSIONS STARTING APR 1960	DEC 1969	JAN 1980	FOUR SHARP RECESSIONS STARTING NOV 1948	JULY 1953	AUG 1957	NOV 1973	AVG. 1948 -73	CURRENT RECESSION STARTING JULY 1981	LAST MONTH OR QUARTER AVAIL.
I.	COMPOSITE INDEXES											
1.	LEADING EMPLOYMENT INDEX (CIBCR)	17	3.5	-1.2	3.6	5.8	2.2	5.3	-8.7	0.8	-3.8	12/82
	COINCIDENT EMPLOYMENT INDEX (CIBCR)	17	-2.1	-4.7	0.1	-5.6	-9.1	-4.1	-10.1	-5.5	-8.7	12/82
2.	LEADING INDEX (BCD)	17	8.1	7.4	0.4	10.8	7.5	11.1	-16.2	3.5	-1.4	12/82
	COINCIDENT INDEX (BCD)	17	-1.2	-1.6	-1.9	-1.4	-4.9	-2.5	-12.8	-4.6	-10.1	12/82
3.	LEADING EMPLOY. INDEX, GROWTH RATE *	17	6.1	4.1	7.5		8.6	14.2	-10.3	3.6	-4.9	12/82
	COINCIDENT EMPLOY. INDEX, GROWTH RATE *	17	-0.7	-1.0	1.9		-0.1	10.5	-19.2	-2.7	-10.3	12/82
4.	LEADING INDEX, GROWTH RATE *	17	15.6	18.5	9.3		19.9	21.7	-8.9	11.8	6.6	12/82
	COINCIDENT INDEX, GROWTH RATE *	17	1.8	1.1	3.1		0.6	11.5	-18.0	-1.3	-9.1	12/82
5.	LAGGING INDEX (CIBCR)	17	-3.7	-6.2	-2.2	-6.2	-9.0	-9.9	-6.6	-5.9	-3.1	12/82
	COINCIDENT/LAGGING RATIO *	17	3.0	4.4	0.2	7.4	5.8	9.5	-6.4	2.1	-6.9	12/82
II.	OUTPUT, INCOME AND SALES											
6.	REAL GNP	15	2.9	2.3	0.5	3.0	-1.8	2.0	-4.9	0.2	-2.5	IV/82
	REAL GNP GROWTH RATE *	15	2.3	3.6	1.0	2.1	-4.9	4.4	-8.6	-0.4	-3.2	IV/82
7.	INDUSTRIAL PRODUCTION INDEX	17	0.9	-1.3	0.1	4.0	-4.2	0.3	-14.3	-3.4	-12.2	12/82
	REAL PERSONAL INCOME	17	3.5	3.8	2.3	5.0	2.0	2.2	-2.4	2.1	0.5	12/82
8.	REAL CONSUMER EXPENDITURES	17	2.0	4.0	0.5	4.8	3.9	3.8	-0.2	2.7	2.5	12/82
	REAL RETAIL SALES	17	-1.1	5.7	-0.1	8.8	6.0	2.3	-5.8	2.1	0.7	12/82
III.	EMPLOYMENT AND UNEMPLOYMENT											
9.	TOTAL CIVILIAN EMPLOYMENT	17	0.0	0.6	0.5	0.1	-2.0	-0.5	-1.2	-0.5	-1.6	12/82
	EMPLOYMENT/POPULATION RATIO *	17	-1.0	-1.2	-0.9	-0.7	-1.8	-1.2	-2.2	-1.4	-1.9	12/82
10.	NONFARM EMPLOYMENT	17	-0.2	0.1	1.0	-1.8	-2.2	-0.9	-1.8	-1.2	-3.6	12/82
	NONFARM EMPLOYEE-HOURS	17	-0.7	-1.4	-0.3	-2.8	-2.6	-1.0	-3.7	-2.2	-4.8	12/82
11.	UNEMPLOYMENT RATE, TOTAL *	17	1.5	2.3	1.2	2.0	2.4	1.8	4.0	2.3	3.5	12/82
	UNEMPLOYMENT RATE, INSURED *	17	0.8	1.6	0.1	1.6	2.0	1.3	4.0	1.6	1.9	12/82
12.	EMPLOYMENT DIFFUSION INDEX, 186 IND. *	17	4.7	-13.5	16.2	12.8	-4.4	63.5	-55.6	-2.5	-43.7	12/82
	PART-TIME EMPLOYMENT RATIO *	17	-0.2	-1.2	-0.4			-0.1	-1.5	-0.8	-1.1	12/82
13.	AVERAGE WORKWEEK, MFG.	17	-0.9	-1.3	0.2	1.2	-1.4	0.8	-3.5	-1.0	-2.8	12/82
	OVERTIME HOURS, MFG.	17	-1.3	-16.3	-1.1			11.9	-36.8	-11.2	-23.3	12/82
14.	LAYOFF RATE *	17	0.0	0.4	0.2	-0.7	0.1	-0.2	1.7	0.3	1.2	12/82
	INITIAL CLAIMS, UNEMP. INSURANCE	17	8.1	31.6	-2.1	21.8	20.3	8.6	100.6	27.7	32.9	12/82
IV.	INVESTMENT COMMITMENTS AND INVENTORIES											
15.	HOUSING STARTS	17	16.8	68.8	-25.2	61.9	33.9	39.0	-38.8	22.2	20.9	12/82
	CONTRACTS & ORDERS, PLANT & EQUIP.	17	0.3	-10.4	-6.6	8.7	1.4	1.3	-24.8	-3.9	-0.7	12/82
16.	CH IN INVENT ON HAND & ON ORDER, 72$ **	16	18.4	-0.5	29.6	14.5	9.3	17.7	-65.8	-3.3	-49.5	11/82
	INVENTORY/SALES RATIO, TIMES 10 *	16	-0.1	0.2	0.3	-0.5	-0.5	0.0	2.1	0.3	0.8	11/82
V.	PRODUCTIVITY, WAGES, COSTS, PRICES AND PROFITS											
17.	OUTPUT PER HOUR, GROWTH RATE *	15	4.2	4.8	2.8	2.0	1.1	4.0	-0.7	2.5	1.5	IV/82
	HOURLY COMPENSATION, GROWTH RATE *	15	-1.1	0.0	-0.9	-2.7	-2.7	-0.7	3.4	-0.9	-2.8	IV/82
18.	UNIT LABOR COSTS, GROWTH RATE *	15	-5.3	-5.2	-3.9	-3.7	-3.7	-4.9	3.4	-3.4	-4.3	IV/82
	SELLING PRICE INDEX, GROWTH RATE *	15	-0.4	-0.3	-1.1	-5.4	-1.1	-1.7	6.9	-1.0	-4.8	IV/82
19.	PRICE/LABOR COST RATIO *	15	0.9	0.3	1.2	-0.3	-0.7	0.8	-0.6	0.1	-0.8	IV/82
	CORPORATE PROFIT MARGIN *	12	0.4	-1.2	0.9	-1.3	0.5	-0.6	-3.2	-0.6	-0.2	III/82
20.	BUSINESS FAILURES	17	22.6	14.2	104.4	3.1	9.1	27.3	53.6	39.7	83.3	12/82
	INDUSTRIAL MATERIALS PRICE INDEX	17	-0.5	-5.9	-10.8	-21.4	3.4	-2.7	-8.3	-8.7	-23.7	12/82
21.	CONSUMER PRICE INDEX, GROWTH RATE *	17	-0.5	-2.0	-4.8	-2.5	-1.8	-2.6	-0.5	-2.7	-6.6	12/82
	REAL HOURLY COMPENSATION, GROWTH RATE *	15	-0.5	1.4	3.8	2.6	-2.1	1.4	1.4	1.4	3.0	IV/82
VI.	MONEY, CREDIT, INTEREST RATES AND STOCK PRICES											
22.	MONEY SUPPLY (M1), GROWTH RATE *	17	3.7	4.9	-1.0	4.3	1.3	4.8	-1.9	2.6	4.8	12/82
	TOTAL DEBT, GROWTH RATE *	16	-0.8	0.3	-2.1			2.4	-3.9	-1.6	-5.7	11/82
23.	BUSINESS & CONSUMER DEBT, GROWTH RATE *	16	-4.8	-1.4	-4.2			-0.5	-8.4	-5.0	-10.9	11/82
	FEDERAL DEBT, GROWTH RATE *	17	3.4	5.6	4.9	4.9	-2.6	7.1	13.1	6.0	11.6	12/82
24.	TREASURY BILL RATE *	17	-1.0	-3.5	2.4	0.0	-0.9	-0.5	-1.9	-1.6	-7.1	12/82
	TREASURY BILL RATE	17	-30.4	-45.8	19.8	0.9	-44.7	-15.9	-25.2	-23.6	-47.3	12/82
25.	CORPORATE BOND YIELD *	17	-0.2	-0.8	2.9	-0.7	-0.8	-0.3	1.8	-0.2	-3.5	12/82
	STOCK PRICE INDEX (S&P 500)	17	21.6	9.8	18.8	14.7	44.4	20.6	-17.1	15.0	6.9	12/82

* PERCENTAGE POINTS CHANGE FROM PEAK LEVEL.
** CHANGE IN BILLIONS OF 1972 DOLLARS.

RECESSION-RECOVERY PATTERN CHARTS

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RECESSION - RECOVERY PATTERNS

——— Current recession (business cycle peak: July 1981 or IIIQ 1981)

//////// Average of six recessions (1948-49, 1953-54, 1957-58, 1960-61, 1969-70, 1973-75)

How to Read the Charts

The horizontal time scale in each chart shows the number of months before (-) or after the business cycle peak (0). For the current cycle July 1981 is zero, January 1982 is Month 6, etc. The vertical scale on the left side for most series is an index with the three-month average centered on the business cycle peak date equal to 100. This three-month average is called the peak standing. For the current cycle, the figures plotted are indexes with the June to August 1981 average equal to 100. Each of the previous cycles are converted to indexes in the same way, and then the corresponding months are averaged for the six cycles, 1948-75.

When the figures are percentages, as in the unemployment rate, the inflation rate or other growth rates, the peak standings are subtracted from rather than divided into the data, so that the level at the peak is zero and the scale represents differences from that level in percentage points. Quarterly series (e.g., GNP) are treated in the same way as monthly except that quarterly business cycle peak dates are used and each quarter is plotted as a horizontal line for three months.

The right-hand scale applies to the current cycle, so that one can see where new figures or forecasts would be placed. Also, this scale shows how the averages for previous recessions would translate to current levels. The July 1981 peak standing for the current cycle is shown at the bottom of the chart for reference purposes.

The averages include only six cycles rather than seven, because the 1980-81 cycle lasted only 18 months from peak (January 1980) to peak (July 1981). Averages extending beyond 18 months would begin to overlap with the current cycle.

All the growth rates shown are six-month smoothed rates (or two-quarter smoothed), obtained by dividing the current month's index by the average for the twelve preceding months, and expressing the result as a compound annual rate.

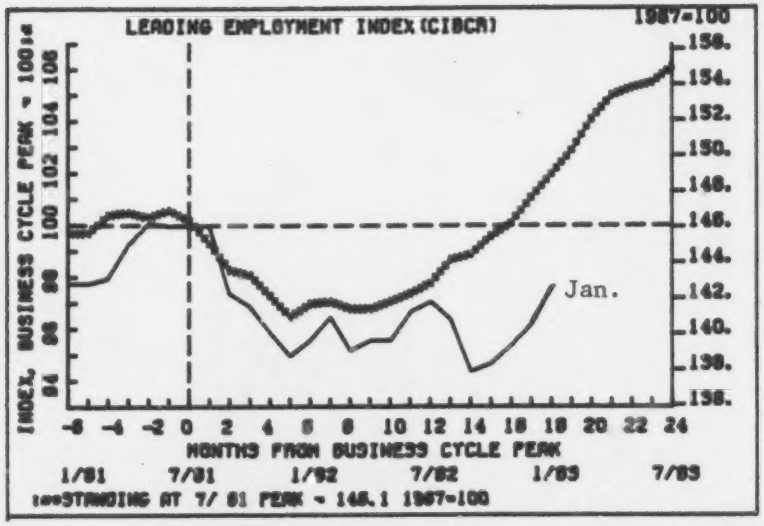

LEADING EMPLOYMENT INDEX(CIBCR)
1987=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
1=STANDING AT 7/ 81 PEAK = 145.1 1987=100

Chart 1

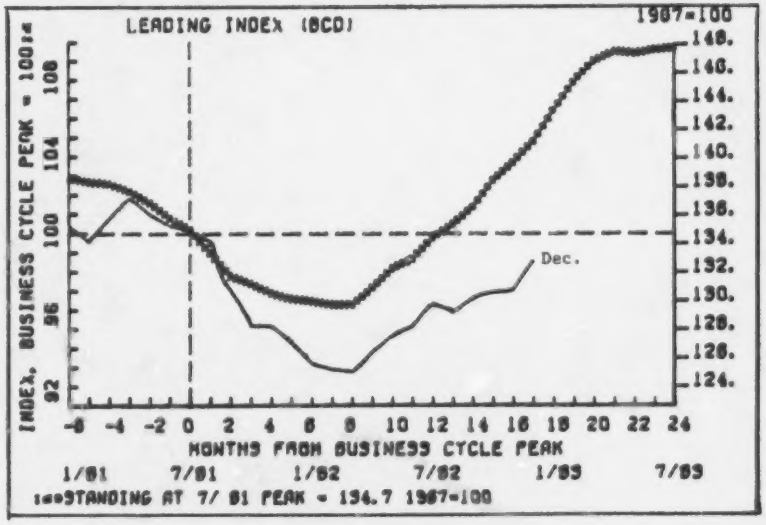
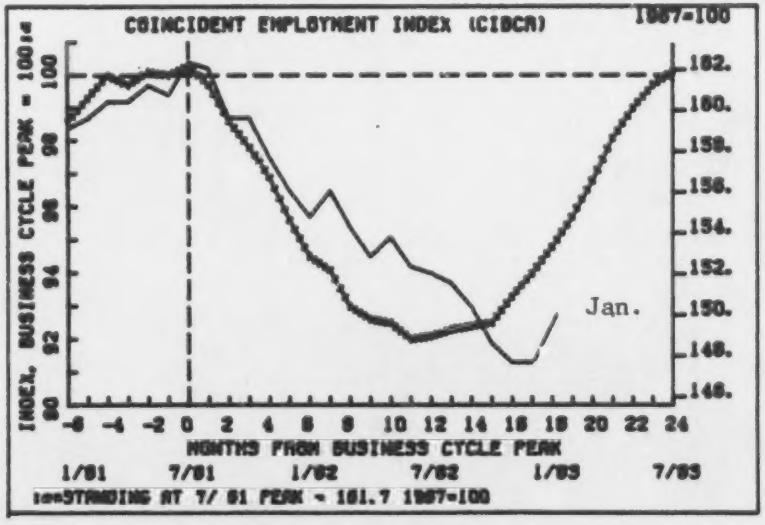
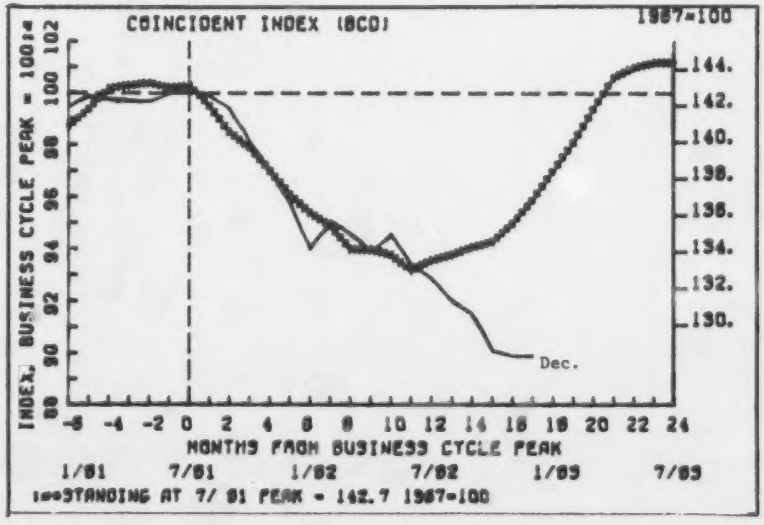

LEADING INDEX (BCD)
1987=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Dec.
1=STANDING AT 7/ 81 PEAK = 134.7 1987=100

Chart 2


COINCIDENT EMPLOYMENT INDEX (CIBCR)
1987=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
1=STANDING AT 7/ 81 PEAK = 161.7 1987=100


COINCIDENT INDEX (BCD)
1987=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Dec.
1=STANDING AT 7/ 81 PEAK = 142.7 1987=100

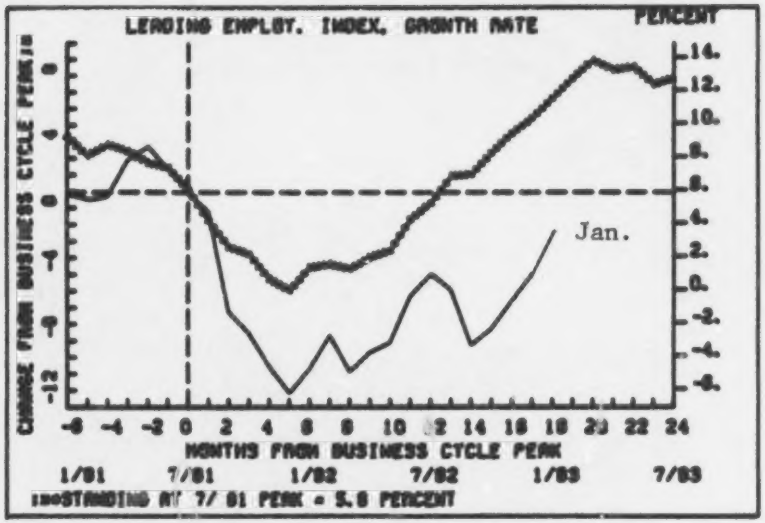


Chart 3

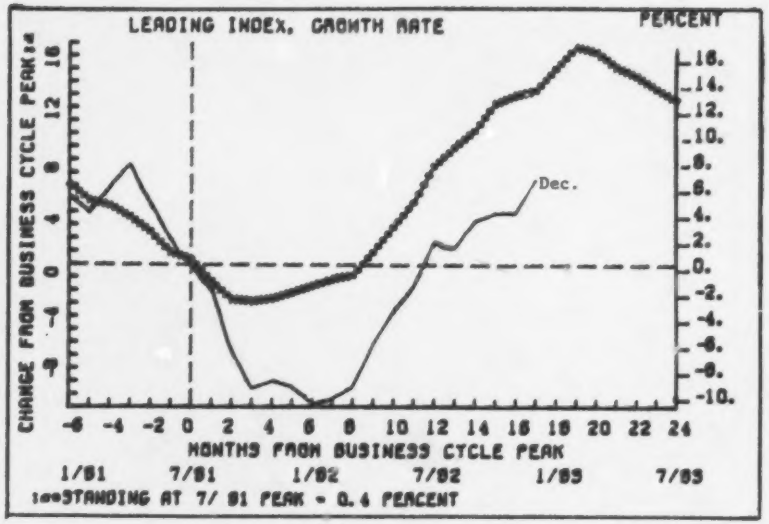
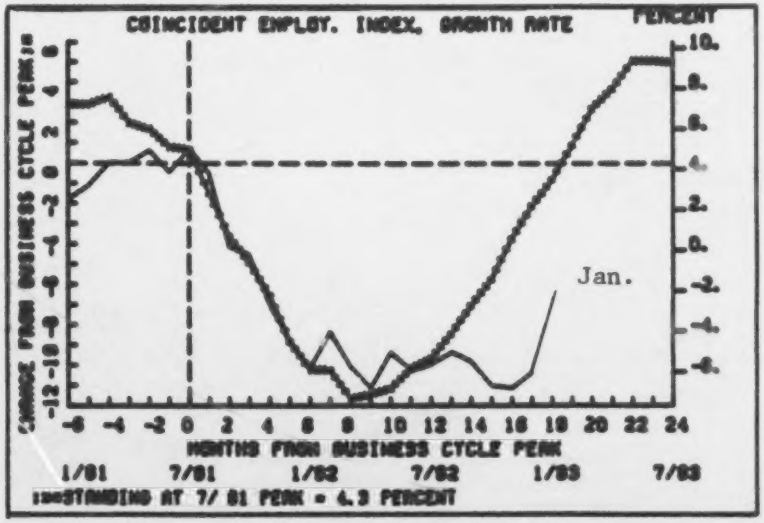
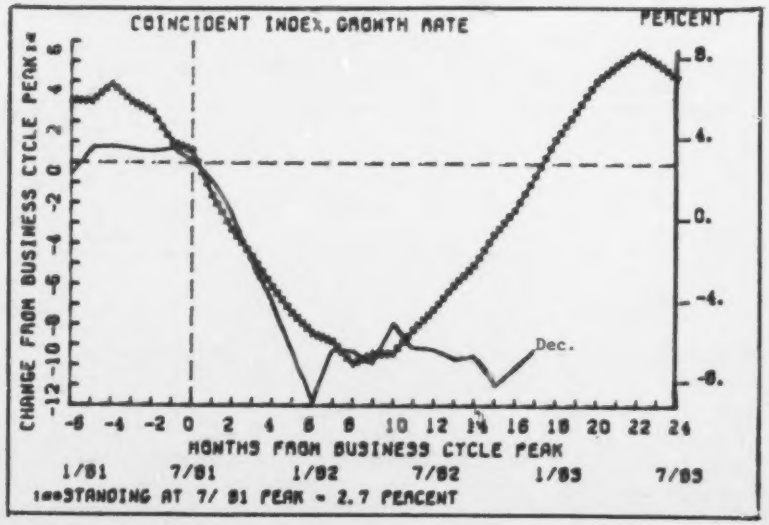


Chart 4





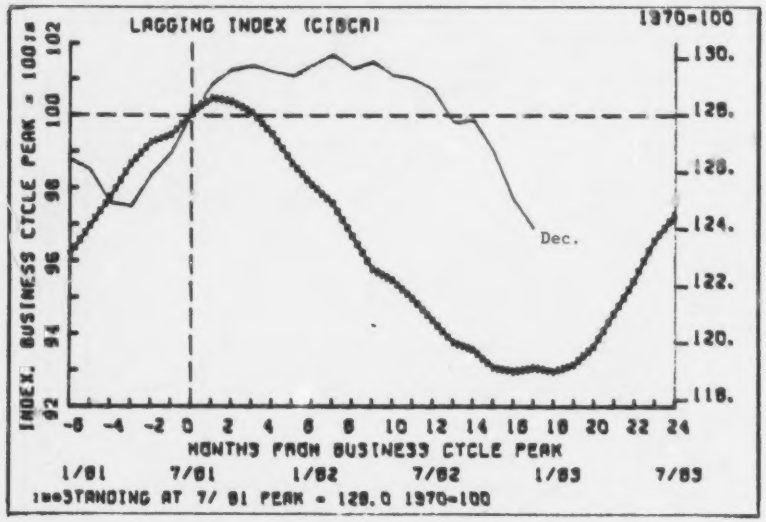


Chart 5

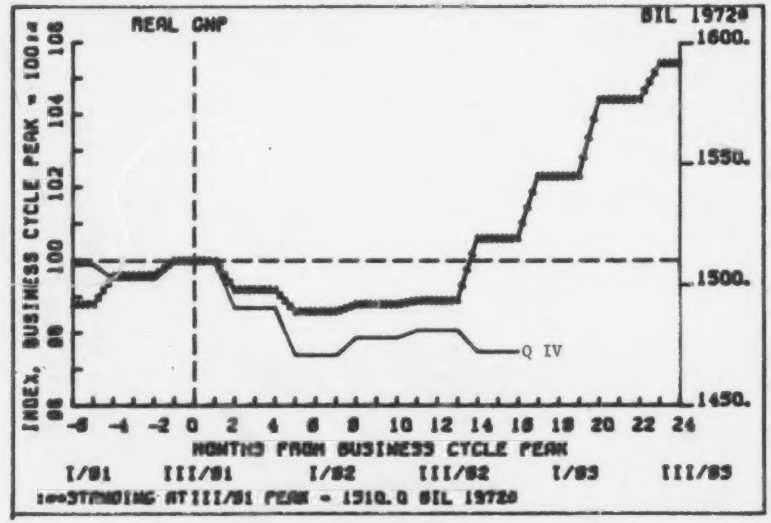
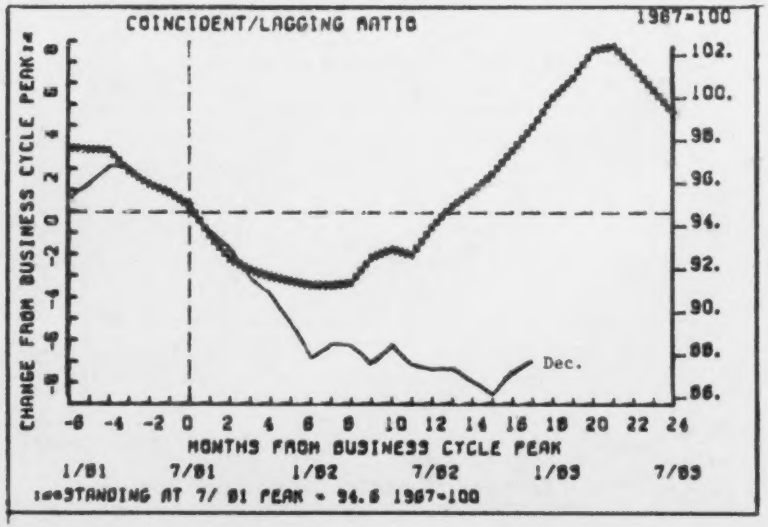
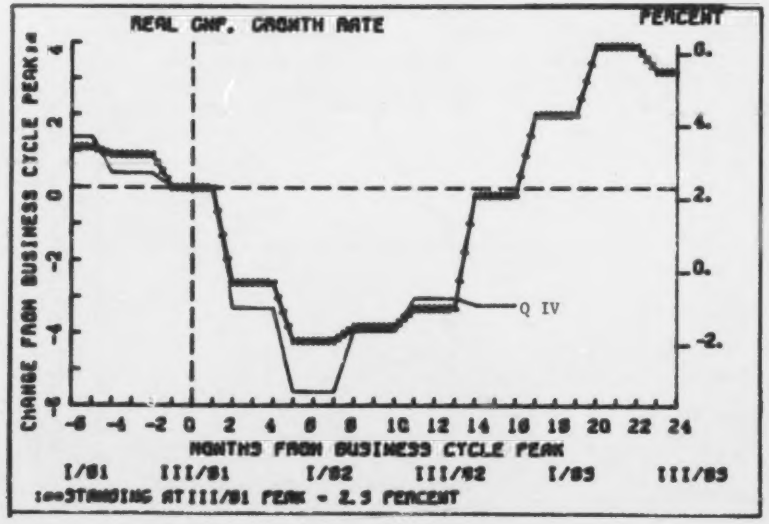


Chart 6




REAL GNP, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK;=
-8 -6 -4 -2 0 2 4
6.
4.
2.
0.
-2.
Q IV
-8 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83
;=STANDING AT III/81 PEAK = 2.9 PERCENT

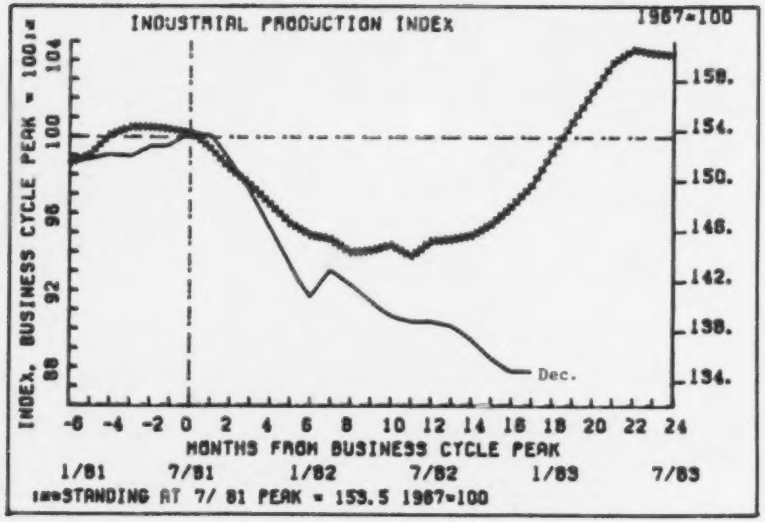


Chart 7

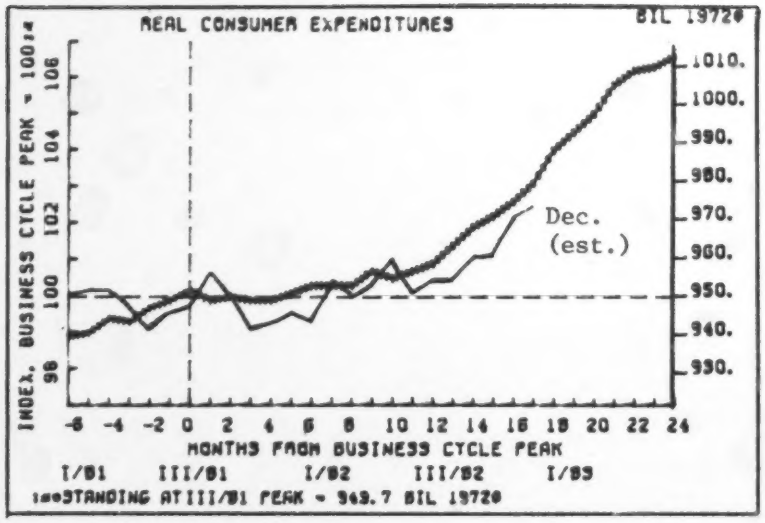
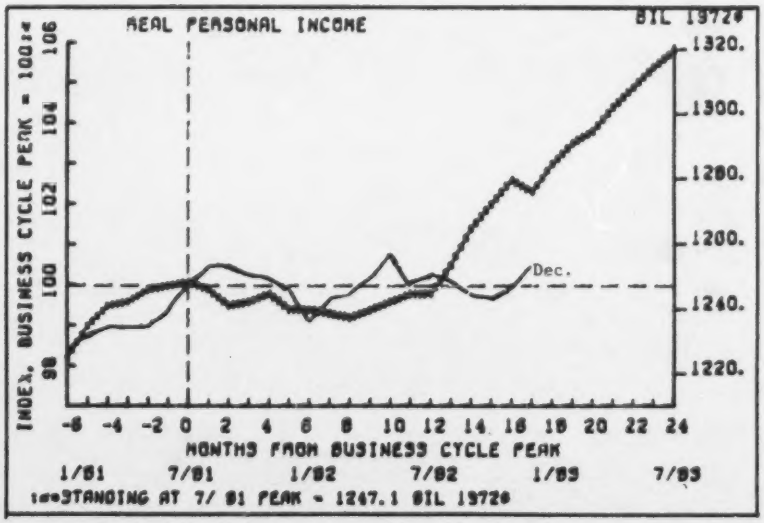
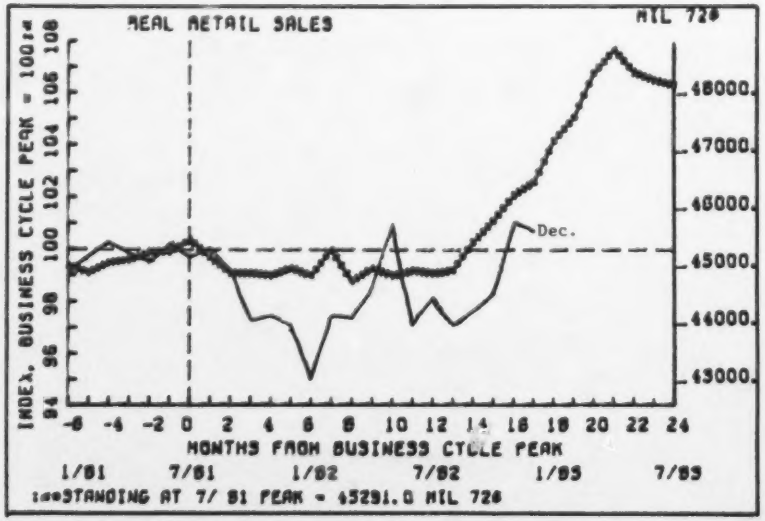


Chart 8





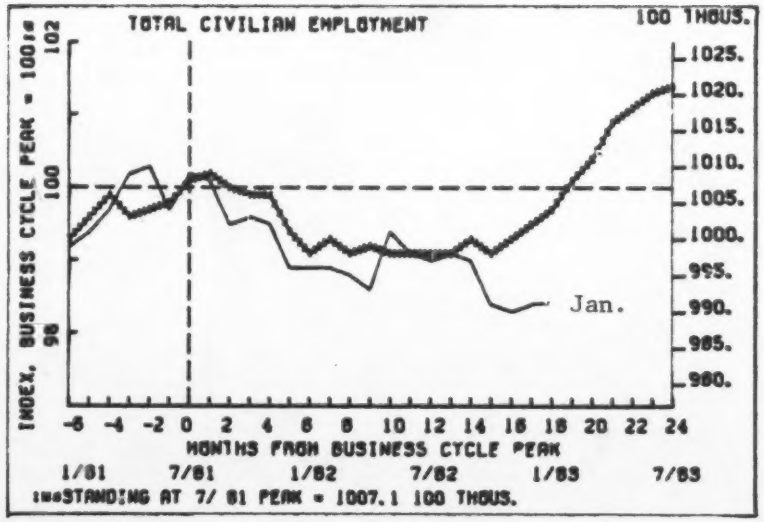


Chart 9

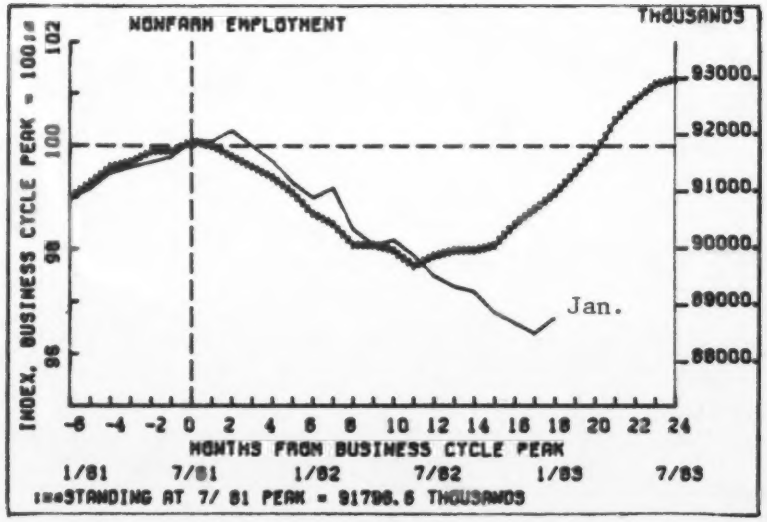
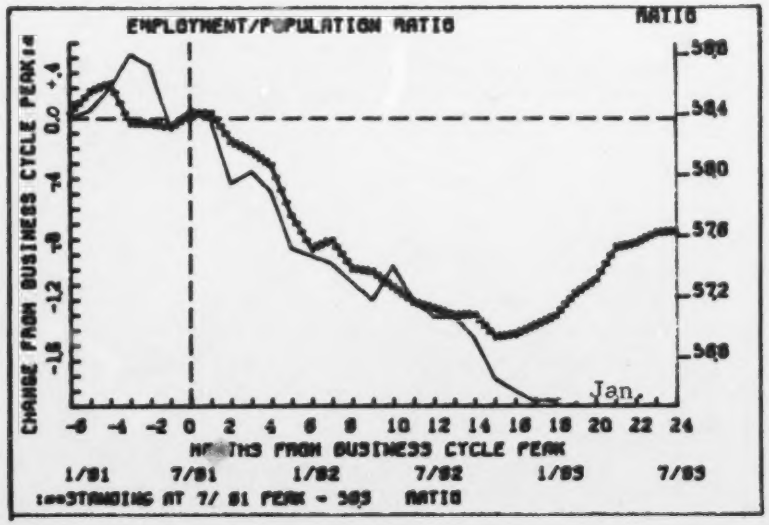
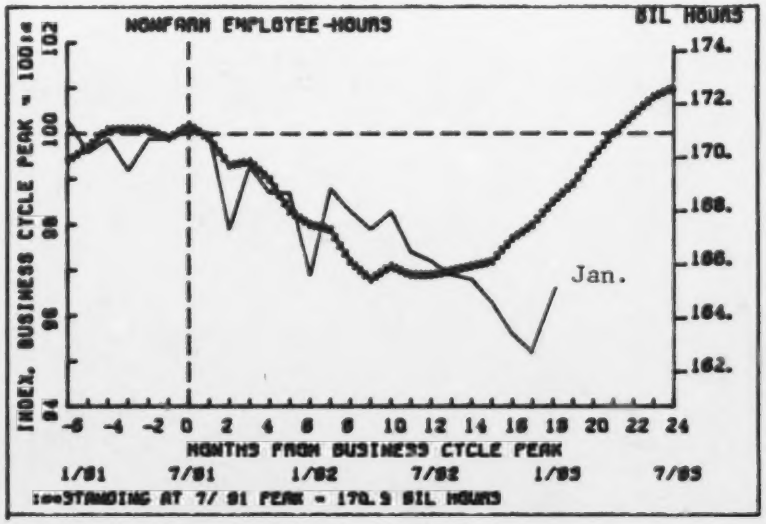


Chart 10





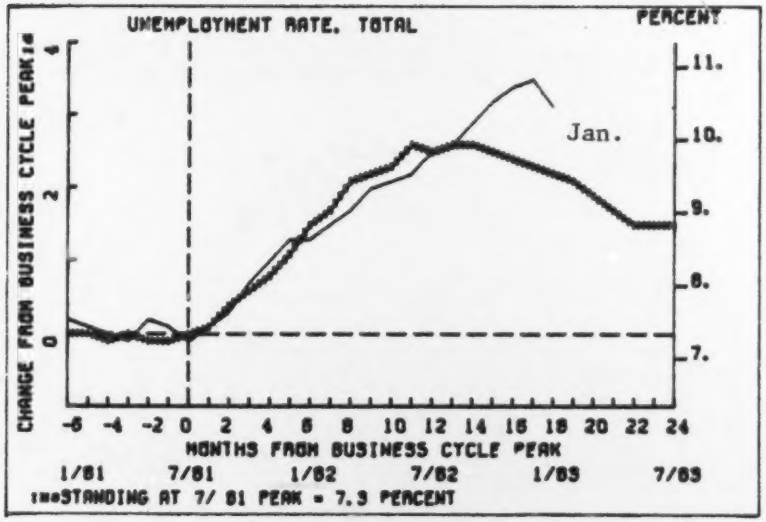

UNEMPLOYMENT RATE, TOTAL
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
STANDING AT 7/ 81 PEAK = 7.3 PERCENT

Chart 11

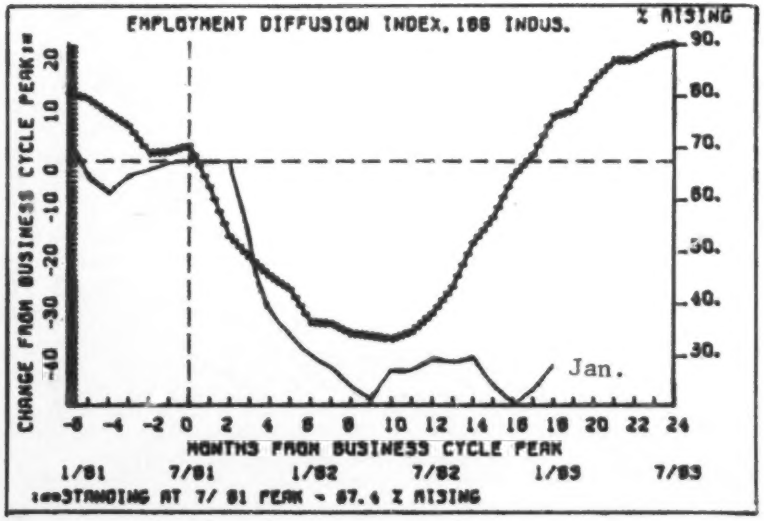
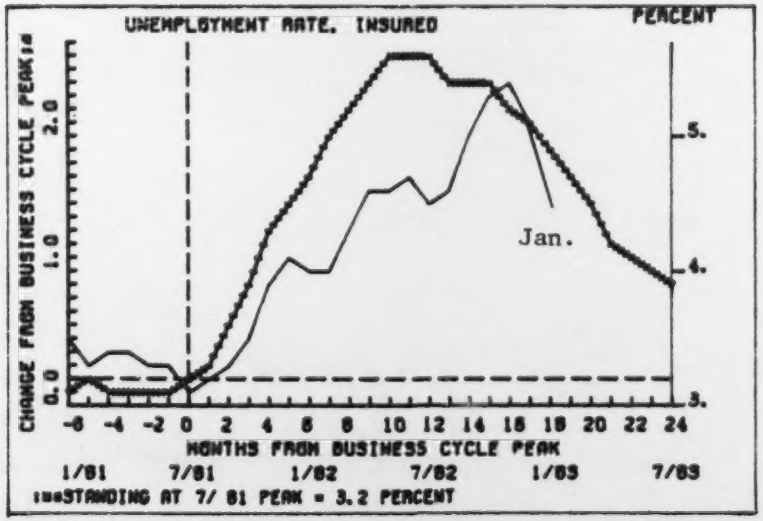
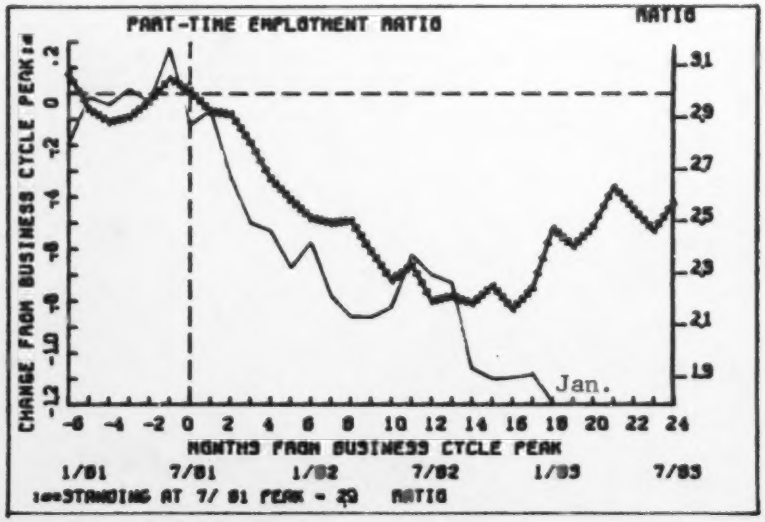

EMPLOYMENT DIFFUSION INDEX, 186 INDUS.
% RISING
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
STANDING AT 7/ 81 PEAK = 87.4 % RISING

Chart 12


UNEMPLOYMENT RATE, INSURED
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
STANDING AT 7/ 81 PEAK = 3.2 PERCENT


PART-TIME EMPLOYMENT RATIO
RATIO
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
STANDING AT 7/ 81 PEAK = 29 RATIO

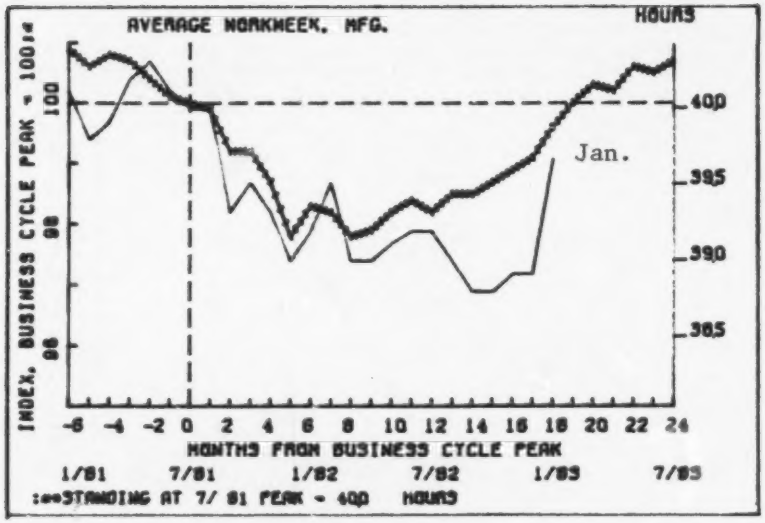

AVERAGE WORKWEEK, MFG.
HOURS
INDEX, BUSINESS CYCLE PEAK = 100
Jan.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 40.0 HOURS

Chart 13

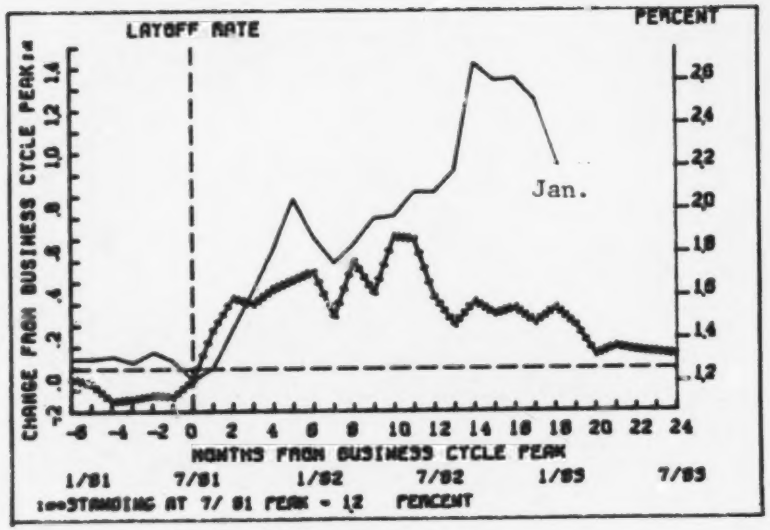
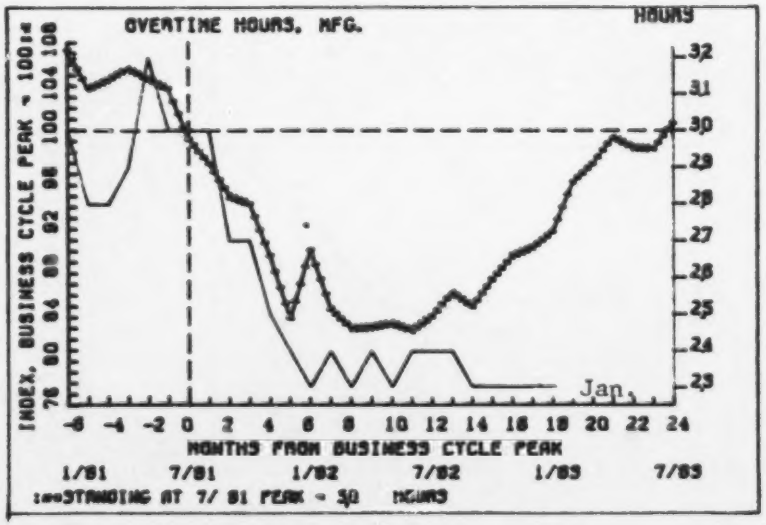
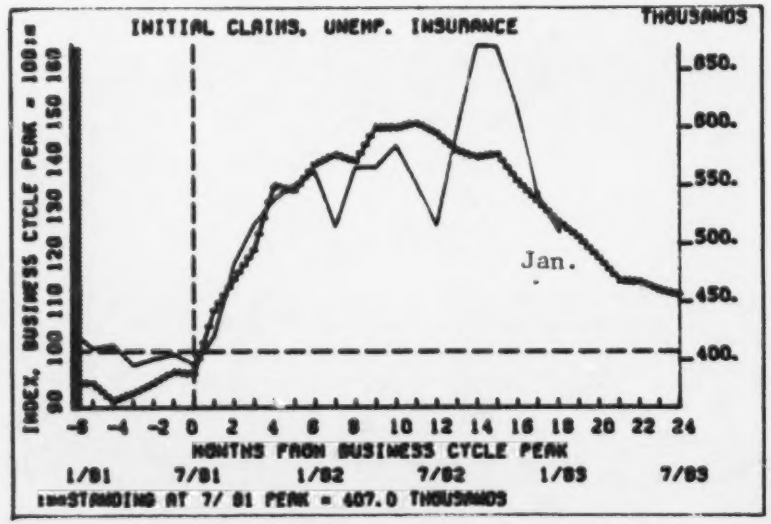

LAYOFF RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
Jan.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 1.2 PERCENT

Chart 14


OVERTIME HOURS, MFG.
HOURS
INDEX, BUSINESS CYCLE PEAK = 100
Jan.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 3.0 HOURS


INITIAL CLAIMS, UNEMP. INSURANCE
THOUSANDS
INDEX, BUSINESS CYCLE PEAK = 100
Jan.
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 407.0 THOUSANDS

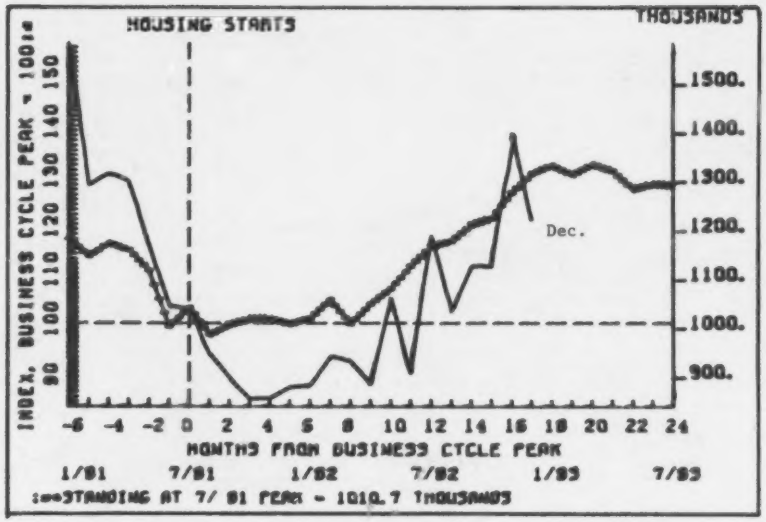


Chart 15

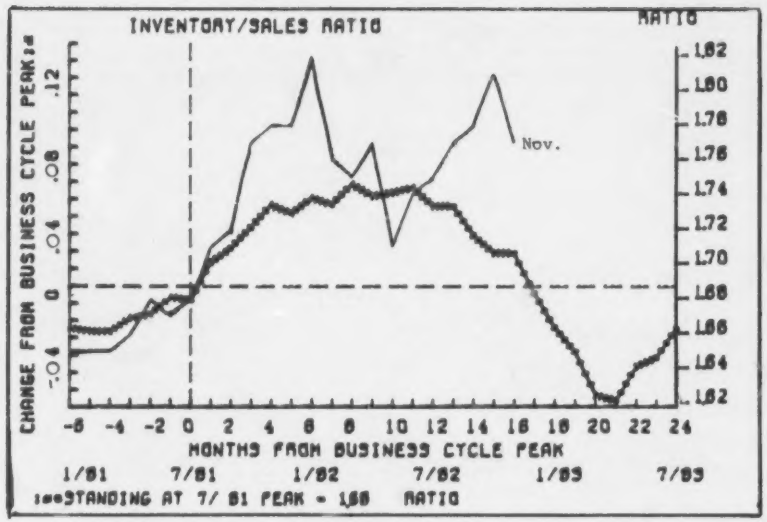
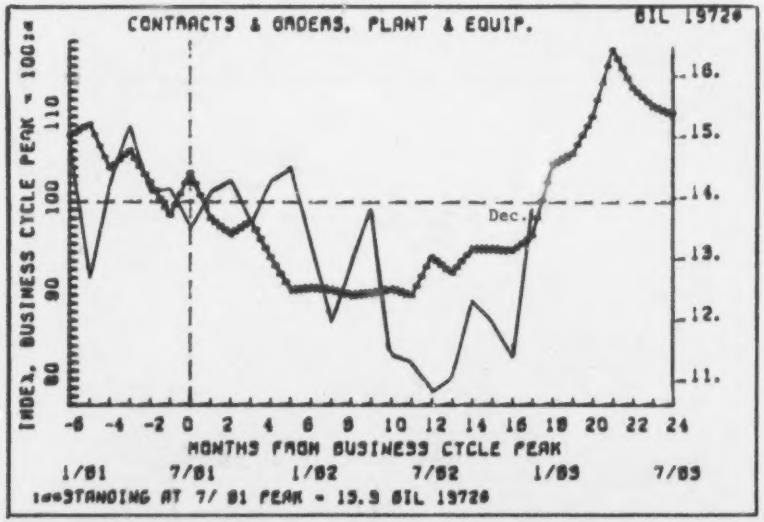
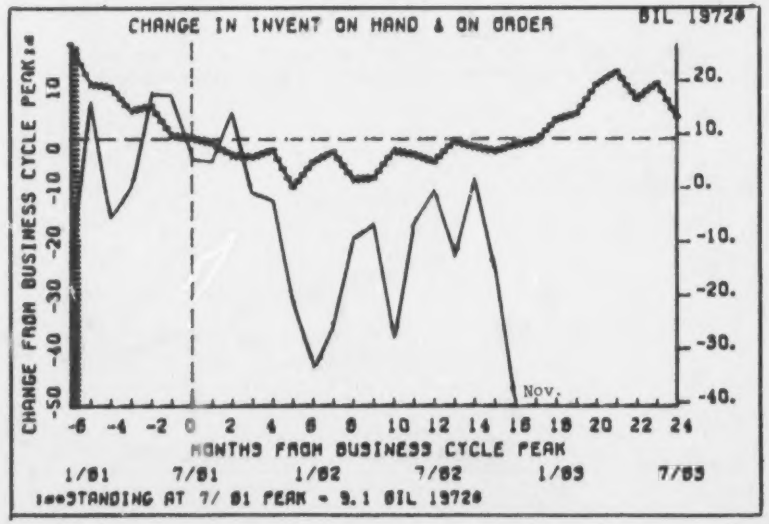


Chart 16


CONTRACTS & ORDERS, PLANT & EQUIP.
BIL 1972$
INDEX, BUSINESS CYCLE PEAK = 100
80 90 100 110
16.
15.
14.
13.
12.
11.
Dec.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 15.9 BIL 1972$


CHANGE IN INVENT ON HAND & ON ORDER
BIL 1972$
CHANGE FROM BUSINESS CYCLE PEAK
-50 -40 -30 -20 -10 0 10
20.
10.
0.
-10.
-20.
-30.
-40.
Nov.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 9.1 BIL 1972$

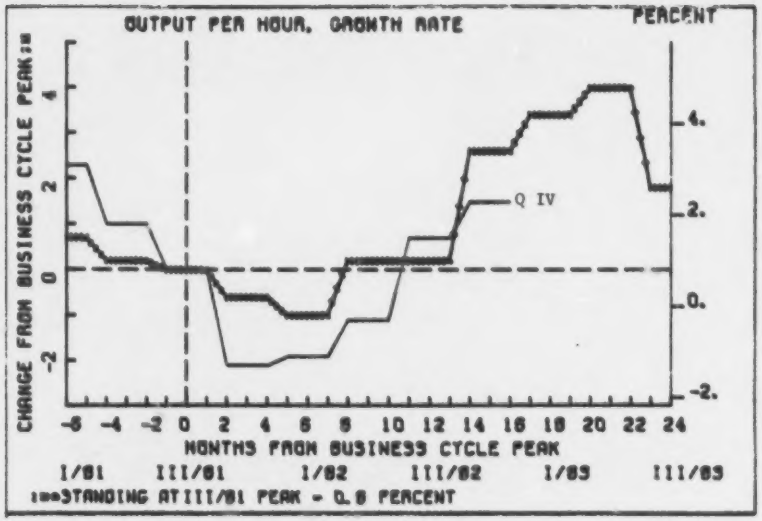

OUTPUT PER HOUR, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
Q IV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83
STANDING AT III/81 PEAK = 0.8 PERCENT

Chart 17

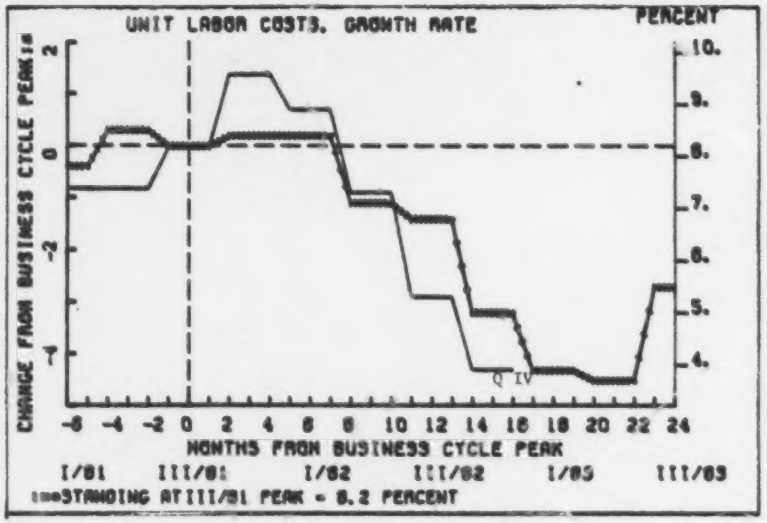
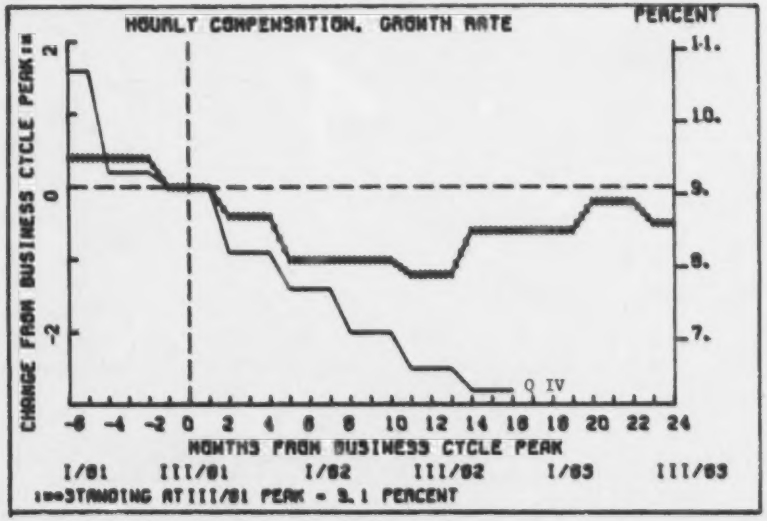
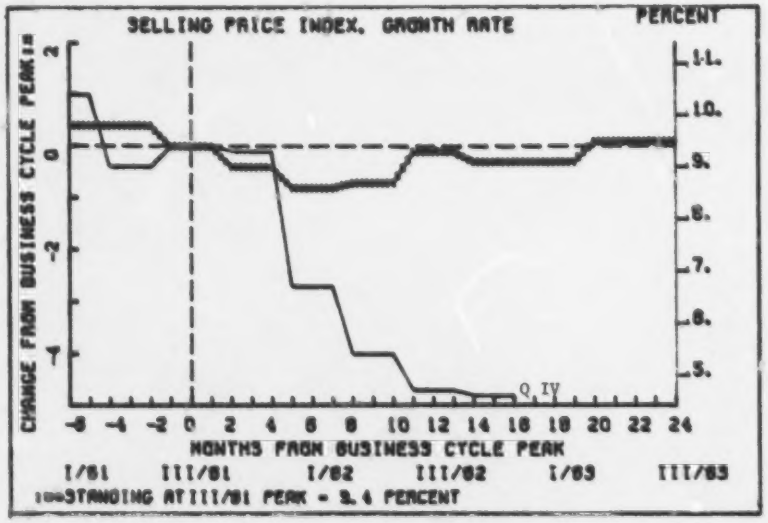

UNIT LABOR COSTS, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
Q IV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83
STANDING AT III/81 PEAK = 8.2 PERCENT

Chart 18


HOURLY COMPENSATION, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
Q IV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83
STANDING AT III/81 PEAK = 9.1 PERCENT


SELLING PRICE INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
Q IV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83
STANDING AT III/81 PEAK = 9.4 PERCENT

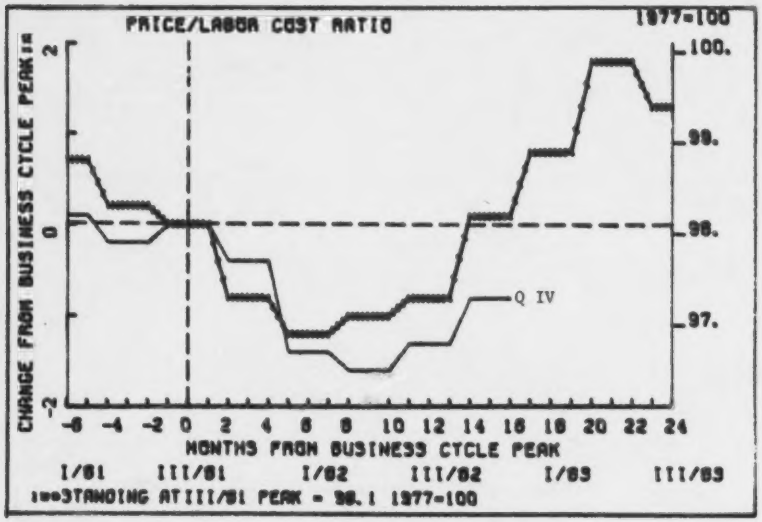

PRICE/LABOR COST RATIO
1977=100
CHANGE FROM BUSINESS CYCLE PEAK=0
100.
99.
98.
97.
Q IV
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83
STANDING AT III/81 PEAK = 98.1 1977=100

Chart 19

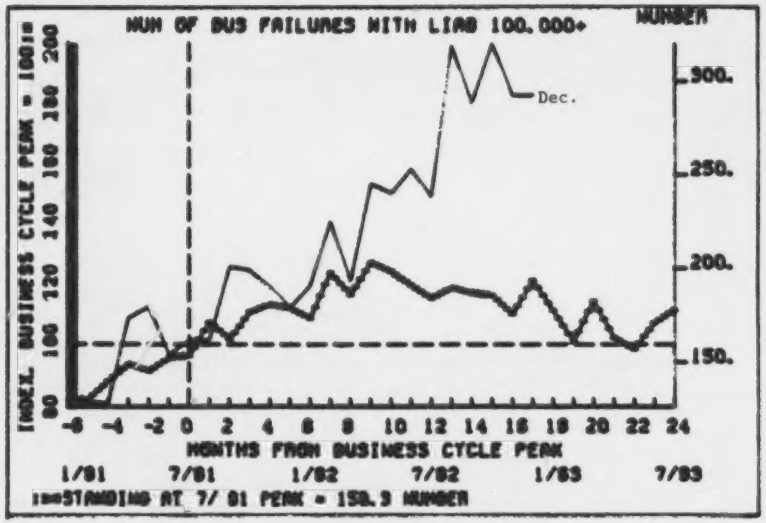
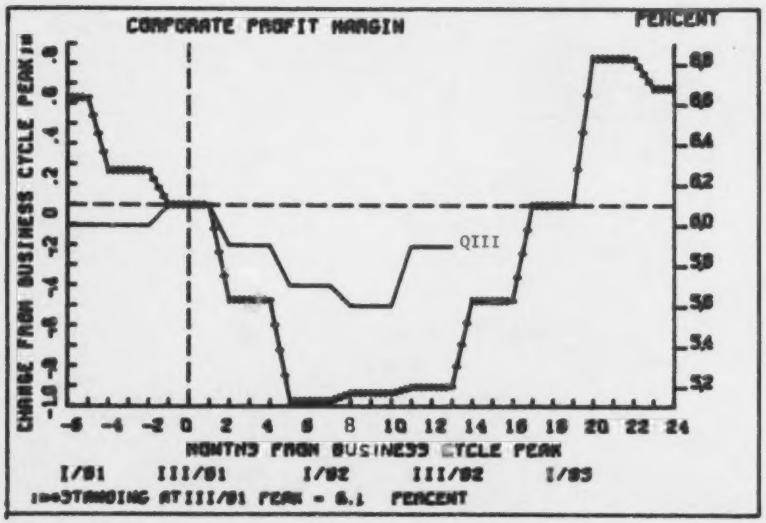
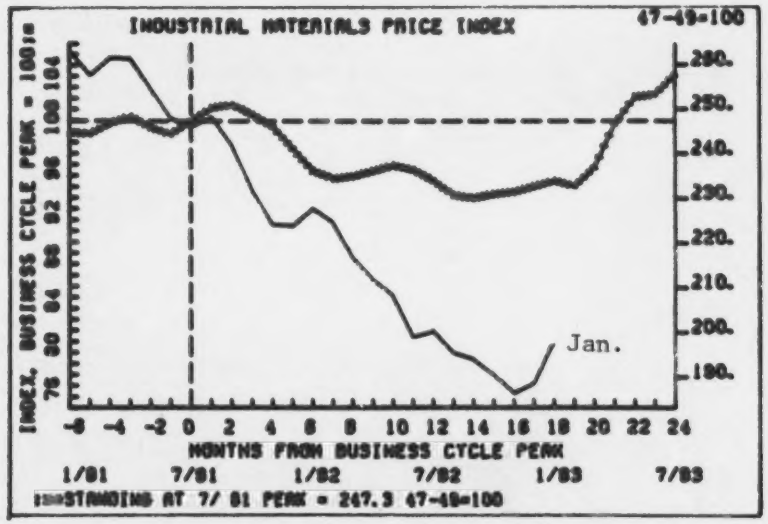

NUM OF BUS FAILURES WITH LIAB 100,000+
NUMBER
INDEX, BUSINESS CYCLE PEAK = 100
300.
250.
200.
150.
Dec.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 150.9 NUMBER

Chart 20


CORPORATE PROFIT MARGIN
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
QIII
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83
STANDING AT III/81 PEAK = 6.1 PERCENT



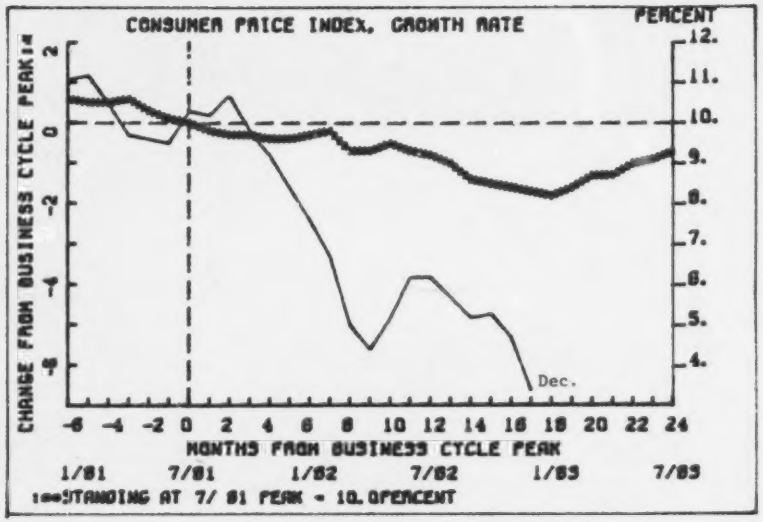

CONSUMER PRICE INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Dec.
1=STANDING AT 7/ 81 PEAK = 10.0PERCENT

Chart 21

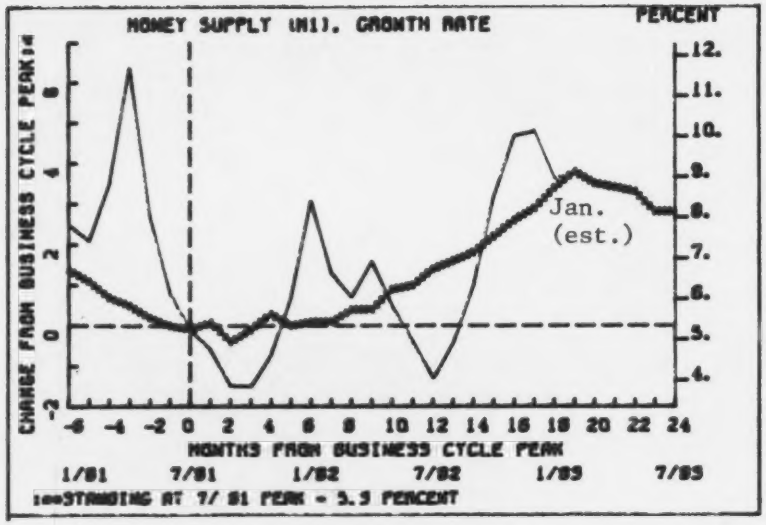
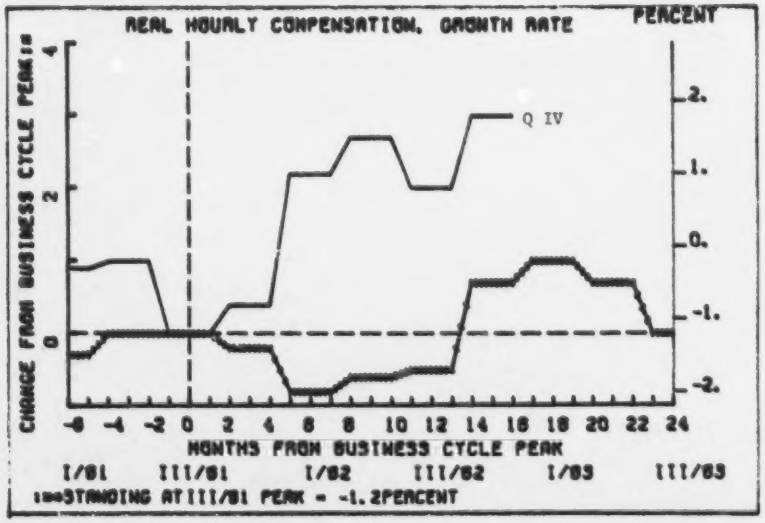
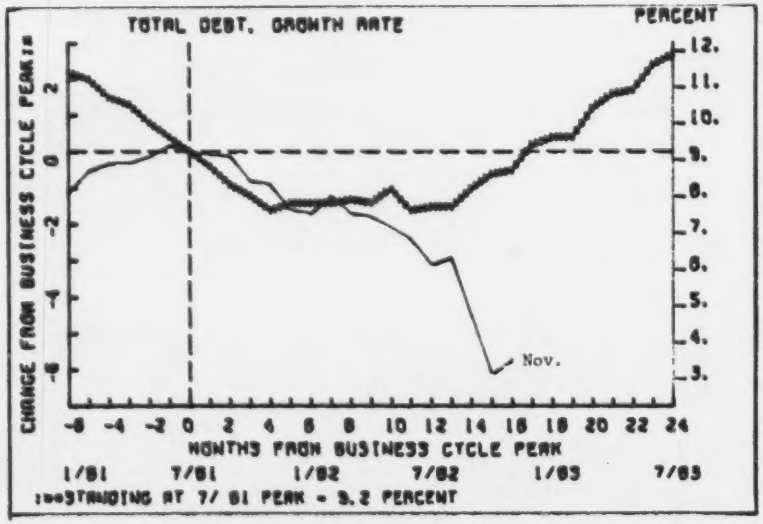

MONEY SUPPLY (M1), GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
(est.)
1=STANDING AT 7/ 81 PEAK = 5.3 PERCENT

Chart 22


REAL HOURLY COMPENSATION, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83
Q IV
1=STANDING AT III/81 PEAK = -1.2PERCENT


TOTAL DEBT, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
1=STANDING AT 7/ 81 PEAK = 9.2 PERCENT

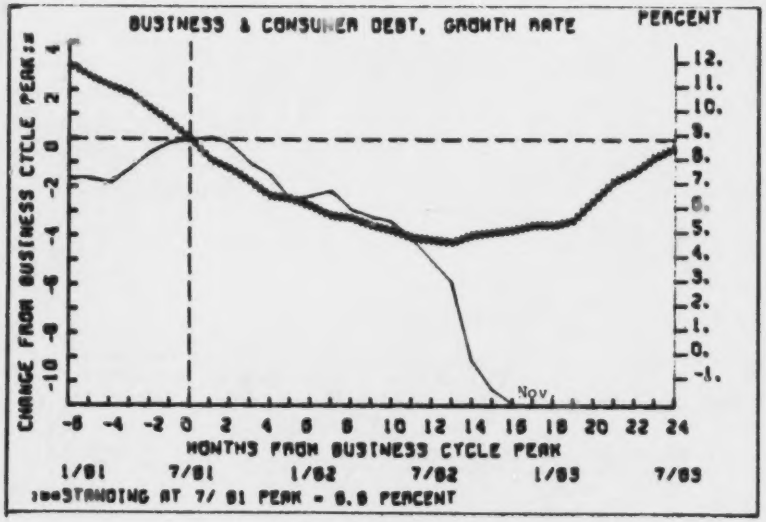

BUSINESS & CONSUMER DEBT, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Nov.
STANDING AT 7/ 81 PEAK = 8.8 PERCENT

Chart 23

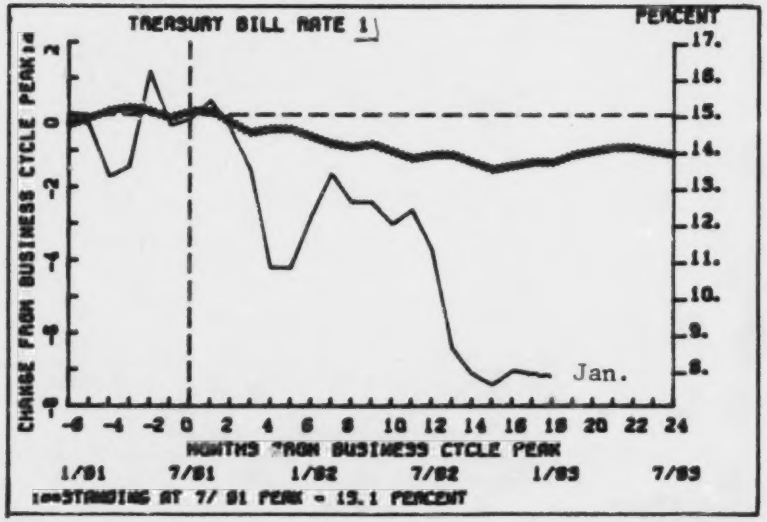
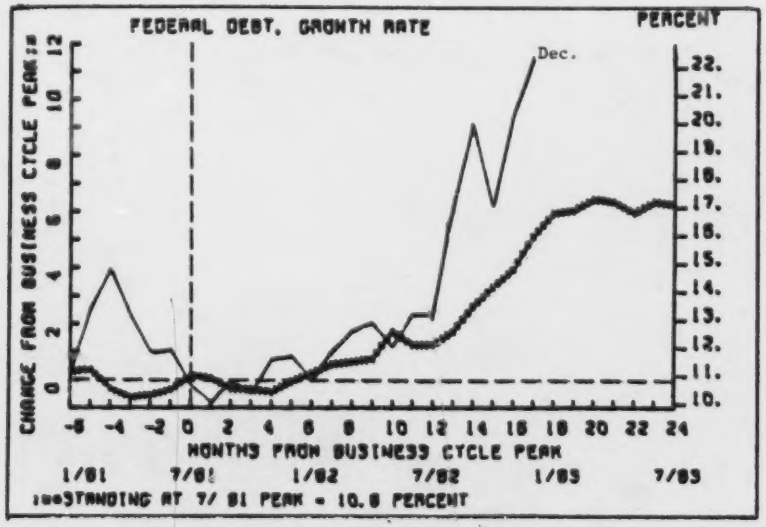
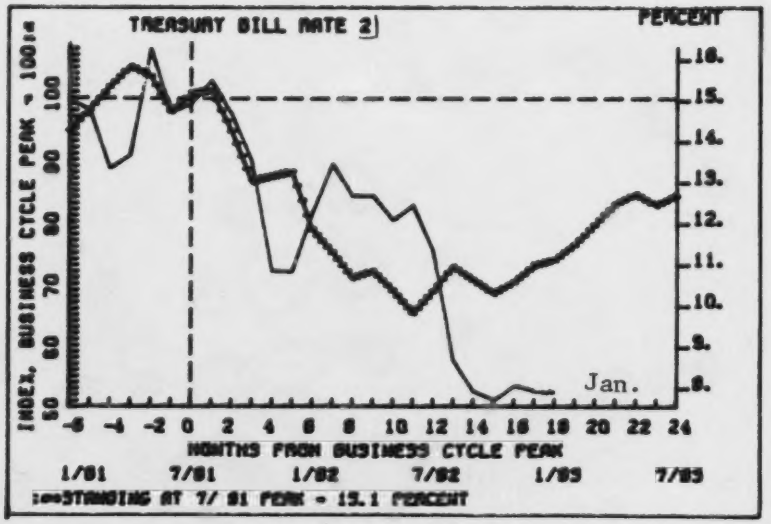

TREASURY BILL RATE 1/
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
STANDING AT 7/ 81 PEAK = 15.1 PERCENT

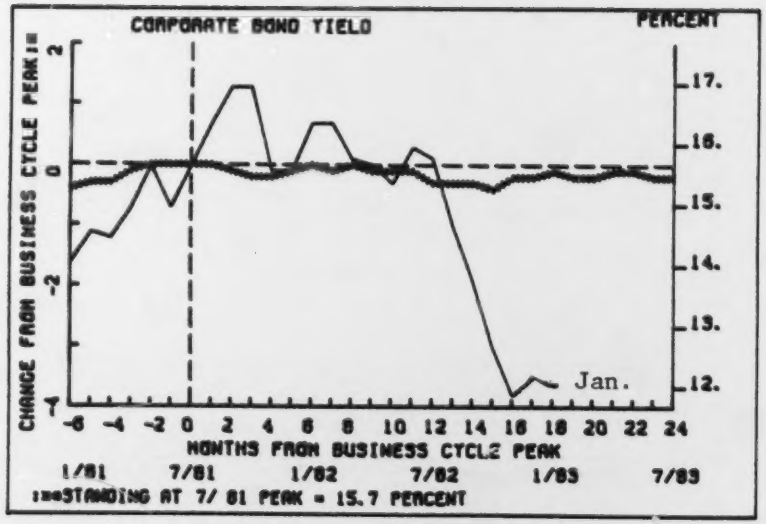
Chart 24

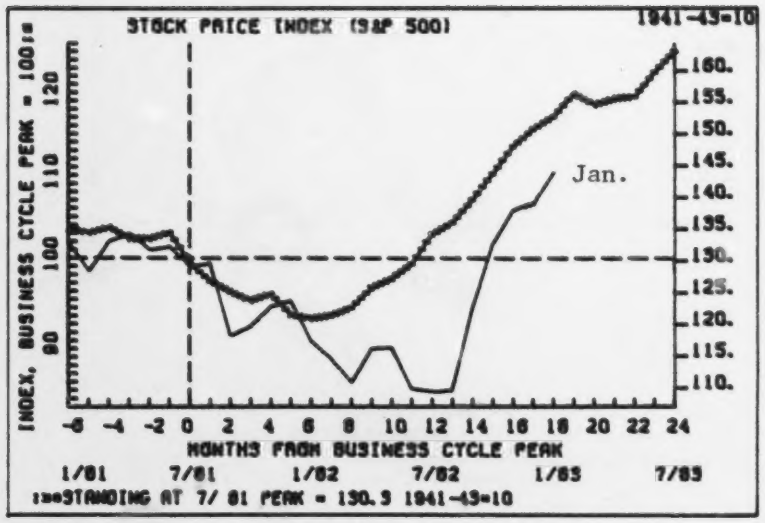

FEDERAL DEBT, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Dec.
STANDING AT 7/ 81 PEAK = 10.8 PERCENT


TREASURY BILL RATE 2/
PERCENT
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
Jan.
STANDING AT 7/ 81 PEAK = 15.1 PERCENT

1/ Percentage points change.
2/ Percent change.

Chart 25


CORPORATE BOND YIELD
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
2
0
-2
-4
17.
16.
15.
14.
13.
12.
Jan.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 15.7 PERCENT


STOCK PRICE INDEX (S&P 500)
1941-43=10
INDEX, BUSINESS CYCLE PEAK = 100
120
110
100
90
160.
155.
150.
145.
140.
135.
130.
125.
120.
115.
110.
Jan.
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83
STANDING AT 7/ 81 PEAK = 130.5 1941-43=10

ABOUT THE CENTER FOR INTERNATIONAL BUSINESS CYCLE RESEARCH

The Rutgers Center for International Business Cycle Research (CIBCR), established in 1979, specializes in the study of trends and fluctuations in economic growth and inflation in the United States and other countries. The analysis contained in this report is the result of its ongoing research programs on domestic U.S. business cycles. Readers are invited to submit comments and suggestions concerning this publication. In addition, readers wishing to secure data compiled by the Center on the six other major industrial countries or copies of research reports may do so by communicating with:

Center for International Business Cycle Research
Ackerson Hall, Rutgers University
Newark, N.J. 07102
Telephone: (201) 648-5217

ABOUT THIS REPORT

RECESSION-RECOVERY WATCH is a bimonthly report designed to analyze current business cycle trends in terms of previous recession or recovery patterns.

This report was begun in August 1979, under the direction of Dr. Geoffrey H. Moore, following the methodology for measuring recessions developed at the National Bureau of Economic Research. Although no forecasts are made, the materials in this report do permit glimpses into the future: first by analyzing the behavior of various leading indicators; second, by indicating what is likely to happen in terms of previous recessions and recoveries.

The leading indicators used in this report are relevant to future output and employment because they represent actions taken, like the placing of orders, that will result in future output, or because they reflect factors, like profits, that influence future decisions on output. The record of what happens during the later stages of business cycles is relevant because of the family resemblance among successive cycles, a resemblance that has its origin in the processes by which business cycles are generated. Every business cycle has its own surprises, partly because of policy actions taken, but many developments are not surprising, having occurred many times before. The historical comparisions contained in this report help one anticipate what is typical and distinguish it from the unusual.

Other CIBCR publications include International Economic Indicators, a monthly sixty page data compilation on the seven major industrial countries, and Inflation Watch, a bimonthly report designed to promote an understanding of inflation, prepared in collaboration with the American Enterprise Institute. Address all correspondence concerning subscriptions to the Center for International Business Cycle Research, Ackerson Hall, Rutgers University, Newark, N.J. 07102.

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RECESSION - RECOVERY WATCH...

Published by the **Center for International Business Cycle Research**,
Graduate School of Management, **Rutgers University**, Newark, NJ 07102

Dr. Geoffrey H. Moore
Director

Vol. 5, No.2
April 1983

SUMMARY

The leading indexes have regained the levels they had before the 1981-82 recession started, thus reducing some of the uncertainty about the vigor and sustainability of the recovery. Our sequential signals of recovery still stand at one signal passed, two to go. Until the third signal is reached, the danger of inflation rekindling is remote. Leading indexes for other industrial countries have turned up in recent months, enhancing the prospects for growth in U.S. exports and a truly international recovery. December 1982 continues to represent the concensus among indicators of a business cycle trough.

* * * * * * * * * * * * * * *

Another Recovery Milestone

One of the milestones on the road to recovery is passed when the leading indexes regain the level from which they fell when the recession started. After all, recovery means getting back to where we came from. Naturally, the leading indexes should accomplish this well before the broad measures of aggregate economic activity recover their pre-recession levels. In fact, sometimes the leading indexes reach this point before one can be sure that a recovery is really underway. Once they do so, however, the record suggests that recession has ended and the recovery phase of the business cycle has begun.

The Commerce Department's (BCD) leading index in January and again in February rose above its level in July 1981, at the start of the recession. The Center's leading employment index virtually recovered to its July 1981 level in March. (See Charts 1-2). In this respect the index looks more favorable than any of its five components (Charts 12-14). The reason is that the index is adjusted so that its historical growth trend approximates that of the economy. The components have virtually no growth trend at all. That is, they understate the growth trend which in fact exists, and the adjustment in the index corrects for this. Otherwise the index would yield too pessimistic a prognosis. A similar adjustment is made in the Commerce Department's index. What this means is that even relatively modest gains in leading indicators that as a rule understate growth can be significant. Since the same adjustment was made in past recessions, comparisons of the current recession with the past are unaffected.

So far, the major employment and unemployment indicators have registered only very modest gains. The Center's coincident employment index in March was only 1 1/2 percent above its November low, and was still 7 percent below its July 1981 level. Employment and unemployment have a long way to go before they get back to pre-recession levels, but it is encouraging that the leading employment index has already done so.

If we take March 1983 as the "recovery point" for the leading employment index, the interval from the business

cycle peak (July 1981) measures 20 months. In the seven preceding recessions, starting with 1948, these intervals were 13, 16, 13, 12, 23, 24, and 10 months, respectively. The current 20 month period is somewhat longer than the average (16 months), but not quite as long as in the recessions of 1969-70 and 1973-75. If the trough in this recession was December 1982, the recovery point in the leading index came three months later. This again is within the range of past experience. In the seven previous recessions the leading employment index reached its recovery point some 3, 6, 5, 2, 10, and 4 months after the business cycle trough.

But No Second Signal of Recovery Yet

Notwithstanding the improvement in the leading indexes as just described, which generated an initial signal of recovery last July, the second signal in the sequence has yet to be registered. The second signal depends not only on strength in the leading index but also on a growth rate of at least one percent in the coincident index. The growth rates in the BCD indexes as of February 1983 were:

		Minimum Rates for		
		First Signal (T1)	Second Signal (T2)	Third Signal (T3)
Leading index	+14.2	+1.0	+4.3	+4.3
Coincident index	-3.4	-	+1.0	+4.3

The growth rates in the leading and coincident employment indexes for March made further progress towards the second signal but did not reach it either. The rates are: Leading, +7.2; Coincident, -0.7. Further improvement in the coincident index will be required to reach the second signal criterion.

Inflation Depends on the Signals Also

As noted in our companion report, Inflation Watch, published by the American Enterprise Institute, the signals of recession and recovery have had a close relationship to the rate of inflation (see the March-April issue). Inflation depends in part on the speed of recovery as well as on the factors that underlie that speed. Since the signals depend upon growth rates in the leading and coincident indexes, and since the former includes such relevant variables as credit and the money supply, the signals attain their relevance to inflation by this route. The record from 1948 to date shows that the rate of inflation in the consumer price index is not likely to swing upward until the third signal of recovery has been reached. After that, watch out!

International Evidence of an Upturn

One of the factors that might sustain a recovery, or alternatively nip it in the bud, is the emergence of prosperous or depressed conditions abroad. The 1980-82 recession has been worldwide in scope, resulting in a sharp reduction of U.S. exports. Recovery abroad could reverse this, stimulating output and employment. U.S. recovery can have a similar effect in other countries.

To help judge these prospects, the Center has developed leading indexes for the United Kingdom, Canada, West Germany, France, Italy and Japan. The six countries together took about half of our exports in 1981, and supplied about half of our imports. The leading indexes for the six countries tell something about their propensity to absorb our exports, just as the leading index for the U.S. tells something about our propensity to absorb their exports.

In view of this it is of some interest that the composite leading index for the six countries has been rising quite strongly in recent months (Chart A). The leading indicators for most of

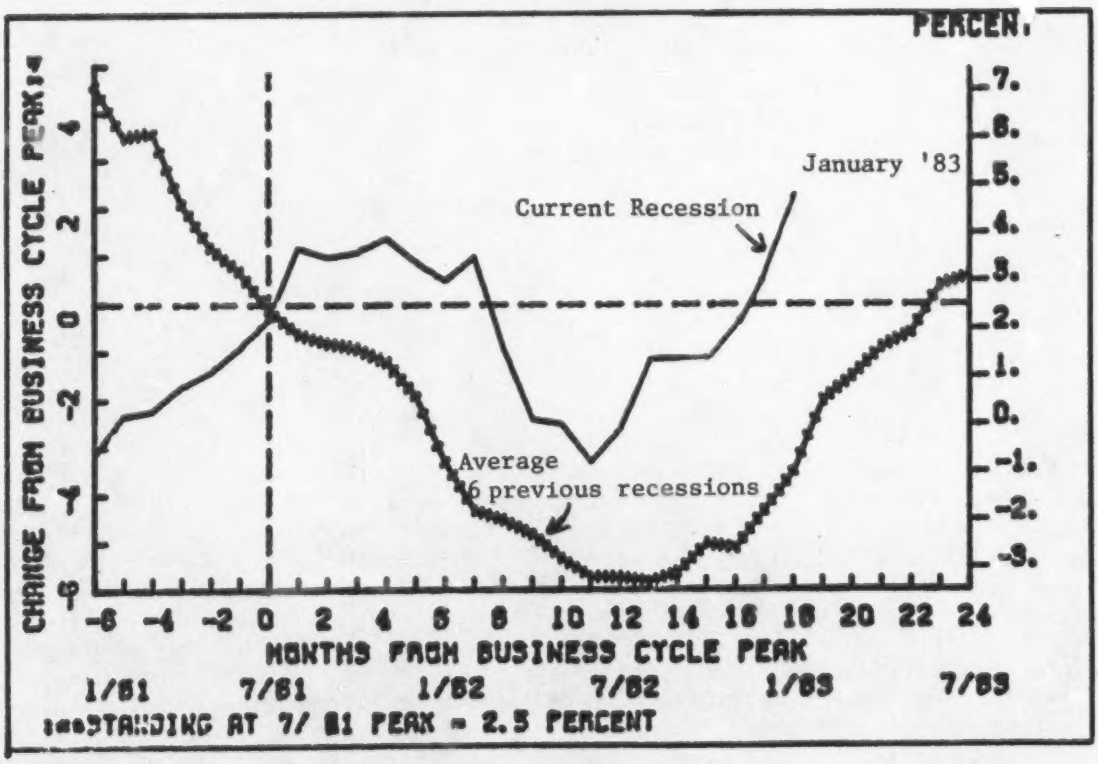
the individual countries show that this improvement is widespread. The ingredient for a sustained and self-reinforcing international recovery seems to be getting into place.

Was December 1982 the Business Cycle Trough?

The date of a business cycle trough, according to the method used for many years by the National Bureau of Economic Research, depends upon when a sustained, substantial, and widespread advance in the nation's economic activity began. The last trough date set by the NBER was July 1980, and even today some economists question this decision because the ensuing expansion lasted only twelve months and was not very substantial according to some measures of activity and capacity utilization. Be that as it may, the point is that there is apt to be prolonged uncertainty about the date, and even the occurrence of a business cycle trough. Nevertheless, it is of interest to see what the evidence now shows. That is the objective of Table 1.

Some twenty-two comprehensive measures of economic activity are included in the table, which lists the

Chart A
GROWTH RATE OF LEADING INDEX, SIX COUNTRIES,
DURING U.S. RECESSIONS[1]



[1] Index includes Canada, United Kingdom, West Germany, France, Italy and Japan.

Table A

DATES OF TENTATIVE CYCLICAL TROUGHS IN TWENTY-TWO SERIES ON AGGREGATE ECONOMIC ACTIVITY, 1982

Date of Trough	Monthly Series	Quarterly series[a]
October 1981	Personal consumption expenditures[b]	
January 1982	Retail sales[b]	
February 1982		GNP[b]
		Disposable personal income[b]
August 1982		Final sales[b]
October 1982	Personal income[b]	
	Personal income less transfer payments[b]	
	Manufacturing and trade sales[b]	
November 1982	Industrial production index	Goods output[b]
	Coincident employment index (CIBCR)	
	Wages in goods industries[b]	
	Insured unemployment rate, inverted	
December 1982	Coincident index (BCD)	
	Employees, nonfarm establishments	
	Employees, goods industries	
	Total unemployment rate, inverted	
February 1983	Total employment, including armed forces	
	Total civilian employment	
	Nonfarm civilian employment	
	Employee hours, nonfarm establishments	

[a] Mid-month of trough quarter.
[b] In 1972 dollars.

dates when they reached their most recent low points. All the dates are labeled tentative cyclical troughs because of the uncertainty in every case as to whether a sustained and substantial increase has begun. The lows are concentrated in October, November and December 1982, and in the case of some employment series, February 1983. A few of the lows occurred very much earlier than the rest, notably in retail sales, personal consumption expenditures, and disposable personal income, all in real terms. Indeed, of these three, only retail sales recorded an appreciable decline during the recession. All three have long since passed their "recovery points," as defined above. This is true also of total real personal income, though not of personal income less transfer payments. Transfer payments, such as unemployment compensation and social security, have been again sustained personal income in recession, and the sharp reduction in the inflation rate has helped sustain real income. This in turn has supported consumer spending.

As noted in the February issue of Recession-Recovery Watch, December 1982 still seems like a good bet for the business cycle trough.

Table 1

RECESSION/RECOVERY STATUS UP TO 20 MONTHS AFTER THE BUSINESS CYCLE PEAK

PERCENTAGE ABOVE (+) OR BELOW (-) THE PRECEDING BUSINESS CYCLE PEAK, UNLESS OTHERWISE NOTED

		MONTHS AFTER BUSINESS CYCLE PEAKS	THREE MILD RECESSIONS STARTING APR 1960	DEC 1969	JAN 1980	FOUR SHARP RECESSIONS STARTING NOV 1948	JULY 1953	AUG 1957	NOV 1973	AVG. 1948 -73	CURRENT RECESSION STARTING JULY 1981	LAST MONTH OR QUARTER AVAIL.
I.	COMPOSITE INDEXES											
1.	LEADING EMPLOYMENT INDEX (CIBCR)	20	7.4	-1.0	1.0	9.0	6.3	9.0	-5.8	3.2	-0.1	03/83
	COINCIDENT EMPLOYMENT INDEX (CIBCR)	20	0.1	-4.5	-0.6	-0.4	-5.7	0.3	-8.9	-3.3	-6.9	03/83
2.	LEADING INDEX (BCD)	19	10.7	4.2	1.2	13.9	12.7	13.7	-11.1	6.1	3.8	02/83
	COINCIDENT INDEX (BCD)	19	1.3	-1.8	-1.9	3.3	-3.5	-0.1	-11.7	-3.0	-9.7	02/83
3.	LEADING EMPLOY. INDEX, GROWTH RATE *	20	10.4	3.0	-0.9		13.2	15.2	-1.7	5.8	1.5	03/83
	COINCIDENT EMPLOY. INDEX, GROWTH RATE *	20	2.8	-0.2	-1.8		6.5	17.0	-12.7	1.0	-5.0	03/83
4.	LEADING INDEX, GROWTH RATE *	19	16.9	12.5	5.6		22.3	20.2	6.2	13.8	12.5	02/83
	COINCIDENT INDEX, GROWTH RATE *	19	6.4	1.1	2.1		3.7	15.0	-13.0	1.3	-6.3	02/83
5.	LAGGING INDEX (BCD)	19	-6.5	-5.9	-2.5	-1.6	-7.5	-8.9	-4.6	-5.5	-6.6	02/83
	COINCIDENT/LAGGING RATIO *	19	7.7	4.3	0.8	6.4	4.9	9.4	-8.5	2.6	-4.0	02/83
II.	OUTPUT, INCOME AND SALES											
6.	REAL GNP	18	5.5	2.9	1.0	5.7	0.0	3.3	-3.7	1.7	-1.2	I/83
	REAL GNP GROWTH RATE *	18	5.3	3.3	0.6	5.0	-1.4	5.1	-5.1	1.5	-0.7	I/83
7.	INDUSTRIAL PRODUCTION INDEX	19	4.5	-0.7	0.7	9.6	-0.7	3.8	-11.4	-0.6	-10.5	02/83
	REAL PERSONAL INCOME	19	5.4	4.1	3.5	5.0	2.5	3.6	0.2	3.1	0.5	02/83
8.	REAL CONSUMER EXPENDITURES	18	2.7	4.8	0.7	5.5	4.5	4.7	1.8	3.4	2.6	01/83
	REAL RETAIL SALES	19	1.6	6.8	-0.6	13.4	7.5	3.8	-2.3	3.8	-0.1	02/83
III.	EMPLOYMENT AND UNEMPLOYMENT											
9.	TOTAL CIVILIAN EMPLOYMENT	20	0.5	1.1	0.4	0.8	-0.6	0.9	-0.4	0.1	-1.6	03/83
	EMPLOYMENT/POPULATION RATIO *	20	-0.9	-1.2	-1.3	-0.4	-1.2	-0.6	-2.0	-1.2	-2.0	03/83
10.	NONFARM EMPLOYMENT	20	0.6	0.2	1.5	0.7	-1.0	0.5	-1.5	-0.3	-3.2	03/83
	NONFARM EMPLOYEE-HOURS	20	0.6	-1.2	-2.3	0.8	-0.7	1.0	-3.5	-1.1	-3.2	03/83
11.	UNEMPLOYMENT RATE, TOTAL *	20	0.8	2.5	1.4	1.2	2.0	1.0	3.8	1.9	3.0	03/83
	UNEMPLOYMENT RATE, INSURED *	20	0.5	1.7	0.1	0.5	1.3	0.4	3.4	1.1	1.3	03/83
12.	EMPLOYMENT DIFFUSION INDEX, 186 IND. *	20	8.8	-6.5	16.5	32.8	25.6	68.2	-36.5	9.4	-34.1	03/83
	PART-TIME EMPLOYMENT RATIO *	20	0.1	-1.1	-0.9			0.0	-1.2	-0.7	-1.0	03/83
13.	AVERAGE WORKWEEK, MFG.	20	1.1	-1.6	-1.8	2.9	0.3	1.8	-3.0	-0.2	-1.1	03/83
	OVERTIME HOURS, MFG.	20	10.5	-16.3	-11.0			25.4	-31.6	-6.1	-13.3	03/83
14.	LAYOFF RATE *	20	-0.1	0.4	0.3	-0.6	-0.4	-0.4	1.5	0.2	0.7	03/83
	INITIAL CLAIMS, UNEMP. INSURANCE	20	-2.7	48.4	16.8	3.2	8.4	-9.3	70.2	19.5	20.9	03/83
IV.	INVESTMENT COMMITMENTS AND INVENTORIES											
15.	HOUSING STARTS	19	13.2	71.6	-32.0	70.0	23.3	35.9	-33.8	27.8	73.8	02/83
	CONTRACTS & ORDERS, PLANT & EQUIP.	19	9.2	-17.1	-5.7	29.7	14.4	23.2	-22.5	1.7	-17.4	02/83
16.	CH IN INVENT ON HAND & ON ORDER, 72$ **	18	14.5	-7.1	25.4	13.1	0.3	19.8	-57.5	-3.5	-36.6	01/83
	INVENTORY/SALES RATIO, TIMES 10 *	18	-0.4	0.0	0.3	-0.8	-1.0	-0.8	2.2	-0.0	0.2	01/83
V.	PRODUCTIVITY, WAGES, COSTS, PRICES AND PROFITS											
17.	OUTPUT PER HOUR, GROWTH RATE *	15	4.2	4.8	2.8	2.0	1.1	4.0	-0.7	2.4	1.3	IV/82
	HOURLY COMPENSATION, GROWTH RATE *	15	-1.1	0.0	-0.9	-2.7	-2.7	-0.7	3.4	-1.0	-3.0	IV/82
18.	UNIT LABOR COSTS, GROWTH RATE *	15	-5.3	5.2	-3.9	-3.7	-3.7	-4.9	3.4	-3.4	-4.1	IV/82
	SELLING PRICE INDEX, GROWTH RATE *	15	-0.4	-0.3	-1.1	-5.4	-1.1	-1.7	6.9	-1.0	-5.1	IV/82
19.	PRICE/LABOR COST RATIO *	15	0.9	0.3	1.2	-0.3	-0.7	0.8	-0.6	0.1	-1.1	IV/82
	CORPORATE PROFIT MARGIN *	15	0.4	0.0	0.9	-2.3	0.8	0.2	-1.9	-0.3	-0.2	IV/82
20.	BUSINESS FAILURES	19	29.0	11.9	103.3	-34.4	-4.5	9.1	-5.4	22.7	72.7	02/83
	INDUSTRIAL MATERIALS PRICE INDEX	20	-2.4	-9.8	-12.9	-5.7	5.6	-0.2	-12.9	-6.2	-11.2	03/83
21.	CONSUMER PRICE INDEX, GROWTH RATE *	19	-0.9	-1.9	-3.7	-0.5	-1.2	-3.3	-1.4	-2.6	-8.2	02/83
	REAL HOURLY COMPENSATION, GROWTH RATE *	15	-0.5	1.4	3.8	2.6	-2.1	1.4	1.4	1.4	2.9	IV/82
VI.	MONEY, CREDIT, INTEREST RATES AND STOCK PRICES											
22.	MONEY SUPPLY (M1), GROWTH RATE *	19	4.2	4.8	-1.0	5.3	2.6	4.5	1.6	3.5	5.8	02/83
	TOTAL DEBT, GROWTH RATE *	18	-0.2	2.1	-1.8			3.7	-4.1	-0.8	-4.4	01/83
23.	BUSINESS & CONSUMER DEBT, GROWTH RATE *	18	-4.3	-0.4	-3.7			1.2	-10.9	-4.5	-9.2	01/83
	FEDERAL DEBT, GROWTH RATE *	19	3.5	8.2	3.3	5.5	-2.6	5.3	16.8	6.2	9.5	02/83
24.	TREASURY BILL RATE *	20	-0.7	-2.7	2.4	0.0	-0.8	-0.4	-1.4	-1.3	-6.8	03/83
	TREASURY BILL RATE	20	-20.7	-35.4	19.5	1.8	-38.0	-12.0	-18.3	-18.5	-44.9	03/83
25.	CORPORATE BOND YIELD *	20	-0.4	-0.9	4.9	-0.5	-0.5	-0.2	1.6	0.0	-3.9	03/83
	STOCK PRICE INDEX (S&P 500)	20	29.7	5.1	6.2	11.7	50.8	23.8	-9.5	16.8	16.5	03/83

* PERCENTAGE POINTS CHANGE FROM PEAK LEVEL.
** CHANGE IN BILLIONS OF 1972 DOLLARS.

RECESSION-RECOVERY PATTERN CHARTS

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RECESSION - RECOVERY PATTERNS

——— Current recession (business cycle peak: July 1981 or IIIQ 1981)

//////// Average of six recessions (1948-49, 1953-54, 1957-58, 1960-61, 1969-70, 1973-75)

How to Read the Charts

The horizontal time scale in each chart shows the number of months before (-) or after the business cycle peak (0). For the current cycle July 1981 is zero, January 1982 is Month 6, etc. The vertical scale on the left side for most series is an index with the three-month average centered on the business cycle peak date equal to 100. This three-month average is called the peak standing. For the current cycle, the figures plotted are indexes with the June to August 1981 average equal to 100. Each of the previous cycles are converted to indexes in the same way, and then the corresponding months are averaged for the six cycles, 1948-75.

When the figures are percentages, as in the unemployment rate, the inflation rate or other growth rates, the peak standings are subtracted from rather than divided into the data, so that the level at the peak is zero and the scale represents differences from that level in percentage points. Quarterly series (e.g., GNP) are treated in the same way as monthly except that quarterly business cycle peak dates are used and each quarter is plotted as a horizontal line for three months.

The right-hand scale applies to the current cycle, so that one can see where new figures or forecasts would be placed. Also, this scale shows how the averages for previous recessions would translate to current levels. The July 1981 peak standing for the current cycle is shown at the bottom of the chart for reference purposes.

The averages include only six cycles rather than seven, because the 1980-81 cycle lasted only 18 months from peak (January 1980) to peak (July 1981). Averages extending beyond 18 months would begin to overlap with the current cycle.

All the growth rates shown are six-month smoothed rates (or two-quarter smoothed), obtained by dividing the current month's index by the average for the twelve preceding months, and expressing the result as a compound annual rate.

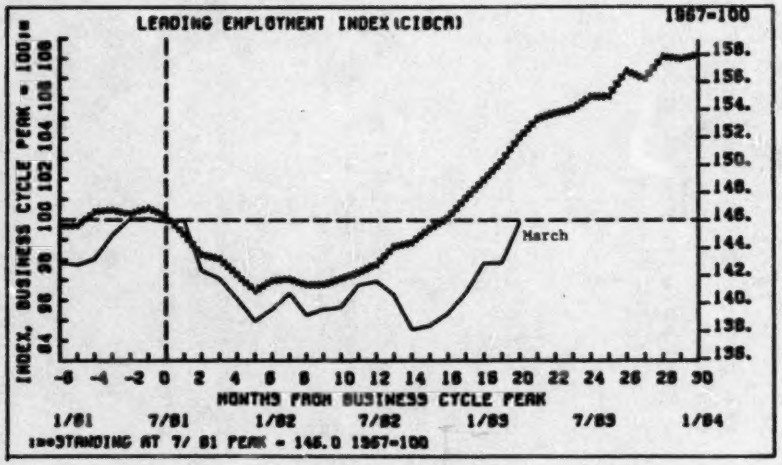

LEADING EMPLOYMENT INDEX (CIBCR)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
March
1/81 7/81 1/82 7/82 1/83 7/83 1/84
=STANDING AT 7/ 81 PEAK = 146.0 1967=100

Chart 1

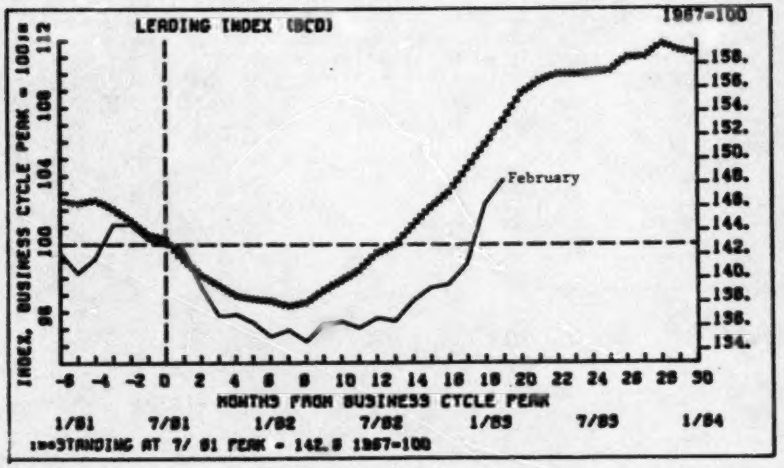
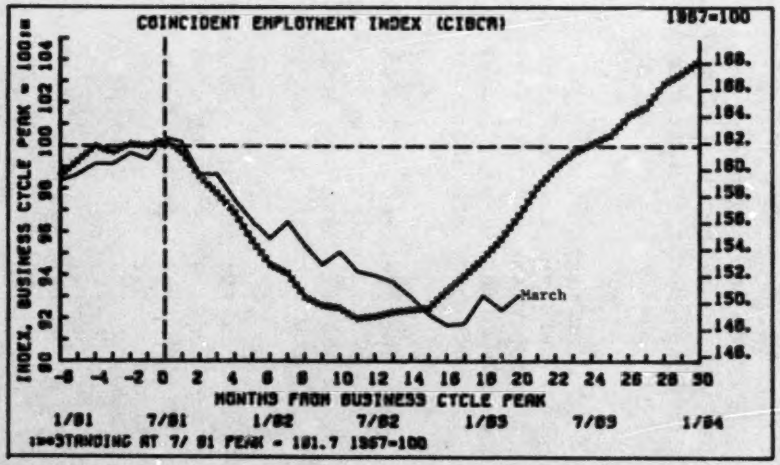
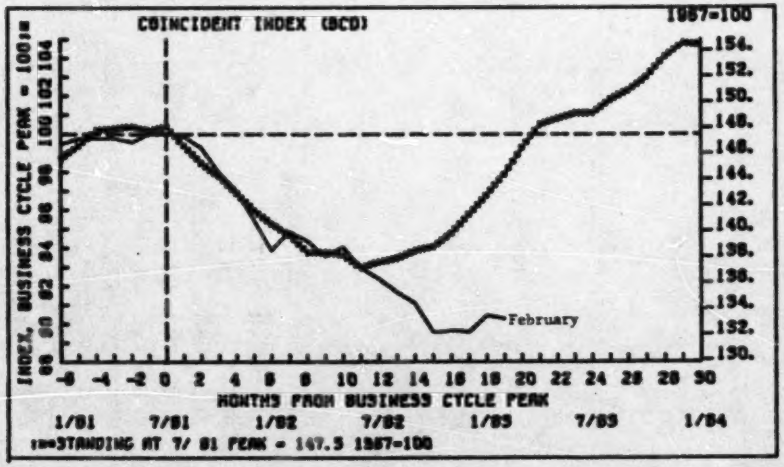

LEADING INDEX (BCD)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
February
1/81 7/81 1/82 7/82 1/83 7/83 1/84
=STANDING AT 7/ 81 PEAK = 142.8 1967=100

Chart 2


COINCIDENT EMPLOYMENT INDEX (CIBCR)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
March
1/81 7/81 1/82 7/82 1/83 7/83 1/84
=STANDING AT 7/ 81 PEAK = 181.7 1967=100


COINCIDENT INDEX (BCD)
1967=100
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
February
1/81 7/81 1/82 7/82 1/83 7/83 1/84
=STANDING AT 7/ 81 PEAK = 147.5 1967=100

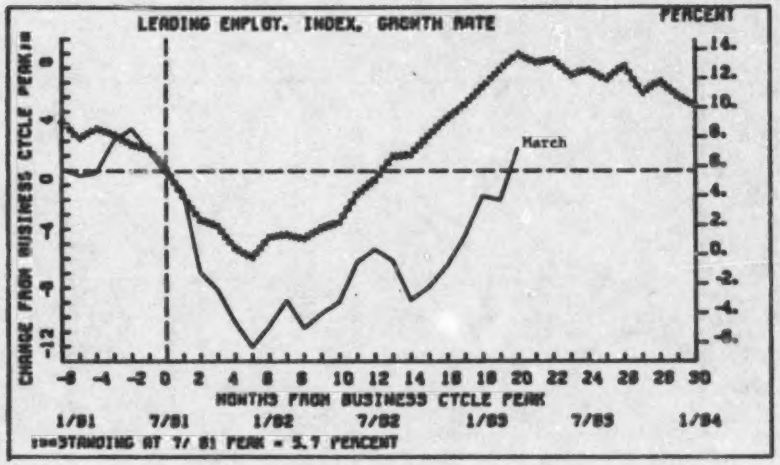

LEADING EMPLOY. INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK(%)
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 5.7 PERCENT

Chart 3

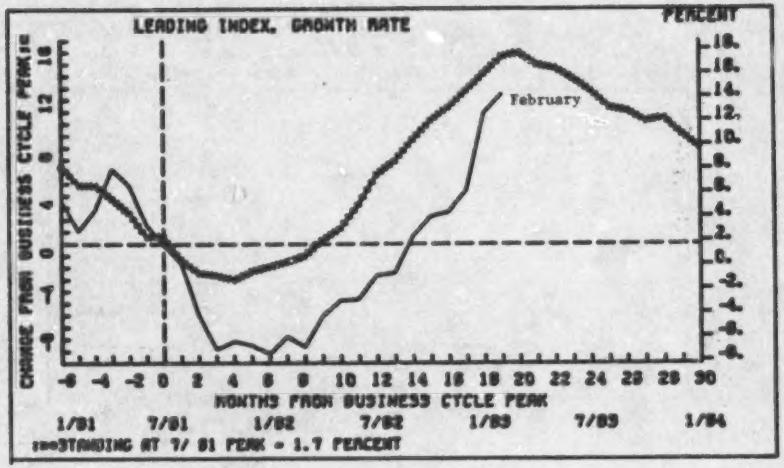
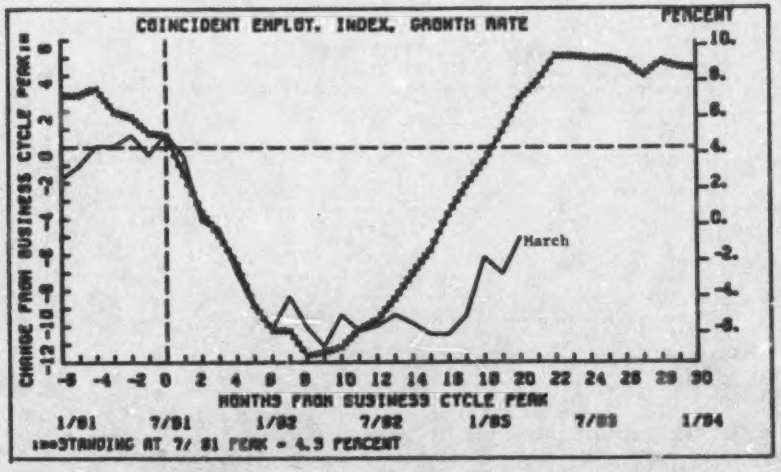
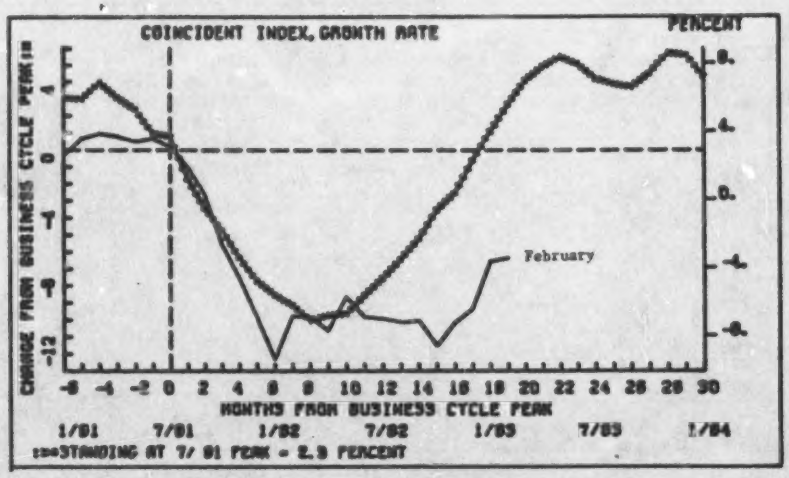
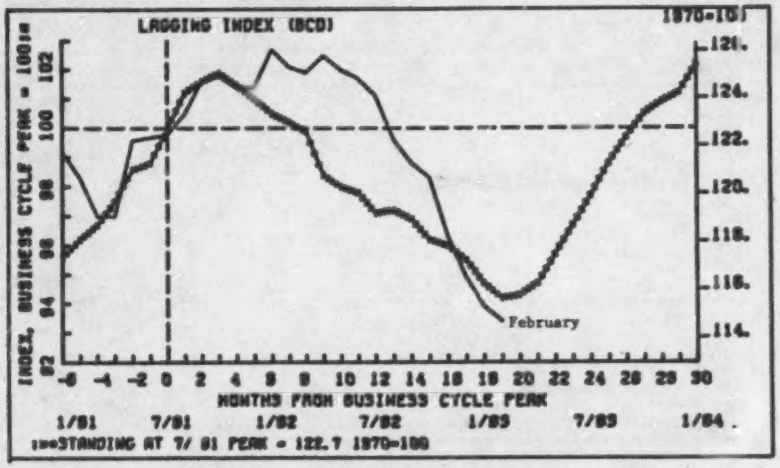

LEADING INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK(%)
February
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 1.7 PERCENT

Chart 4


COINCIDENT EMPLOY. INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK(%)
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 4.9 PERCENT


COINCIDENT INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK(%)
February
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 2.9 PERCENT



Note: The lagging index previously compiled by the Center has been dropped because the revised Commerce Department index is similar to it.

Chart 5

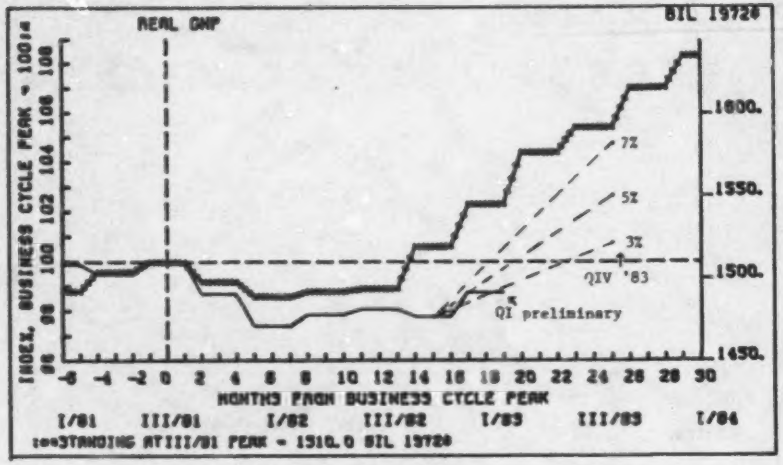
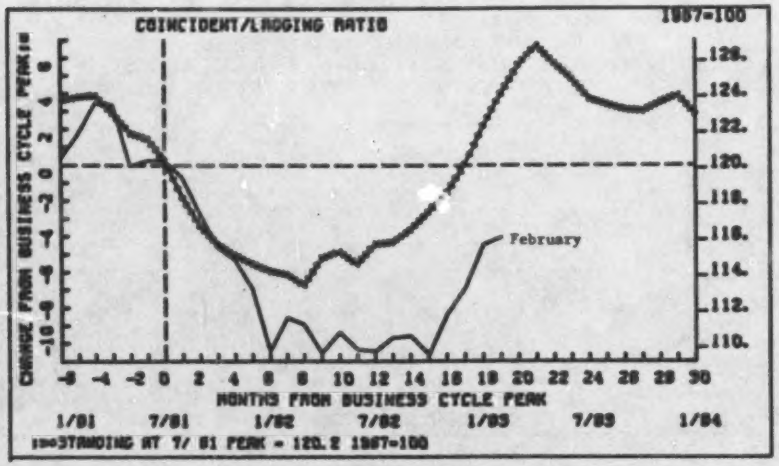
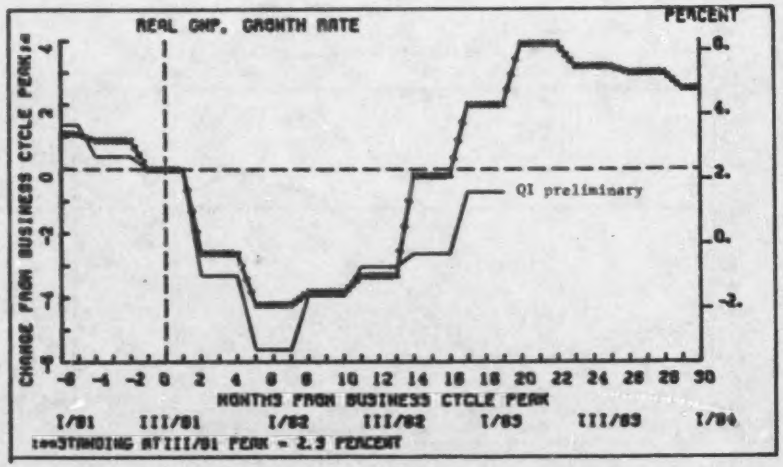


Chart 6





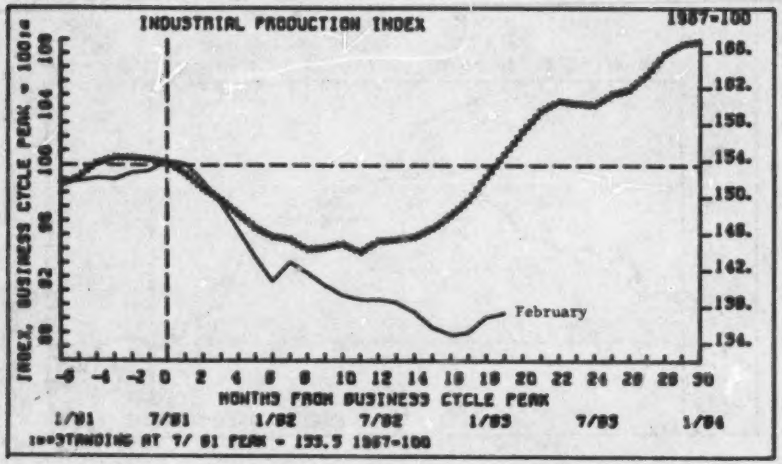


Chart 7

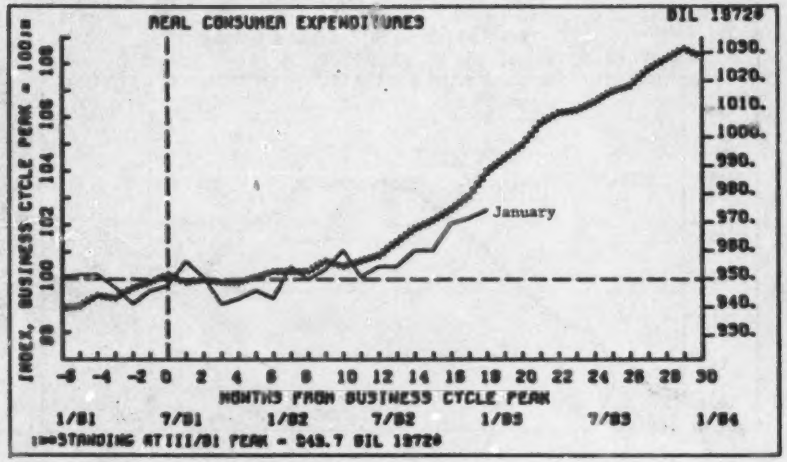
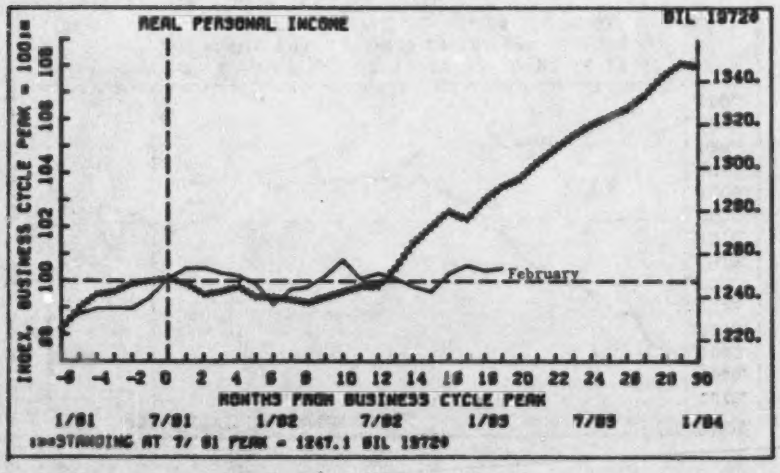
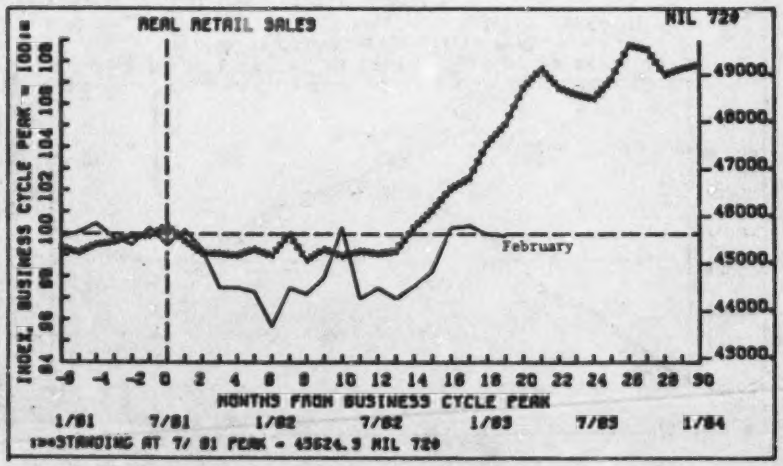


Chart 8





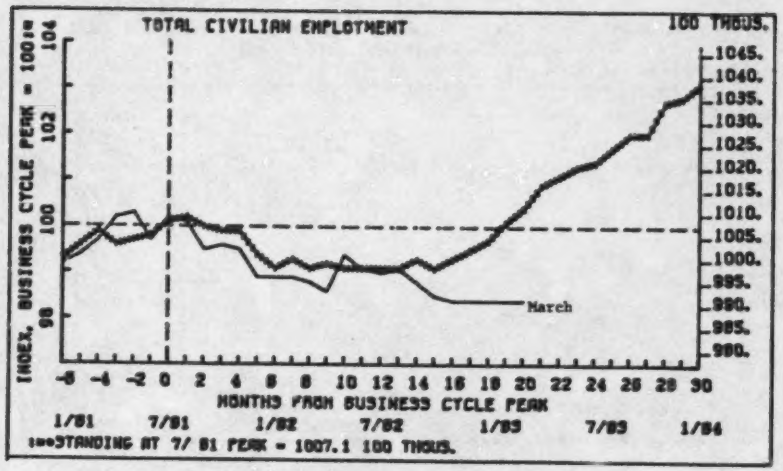

TOTAL CIVILIAN EMPLOYMENT
100 THOUS.
INDEX, BUSINESS CYCLE PEAK = 100
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 1007.1 100 THOUS.

Chart 9

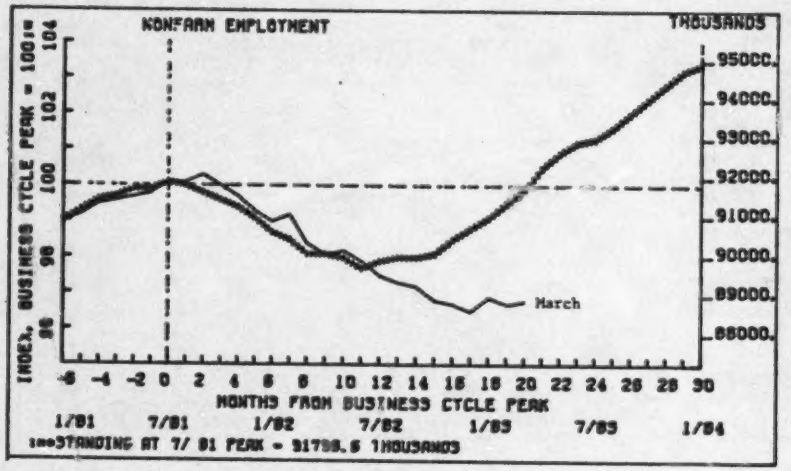
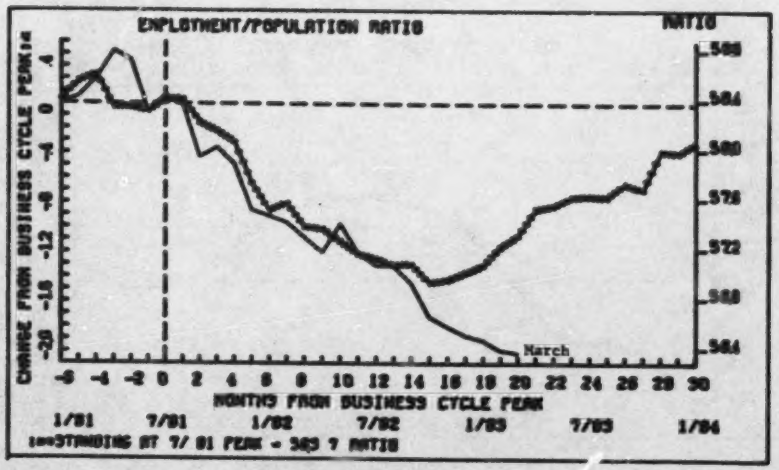
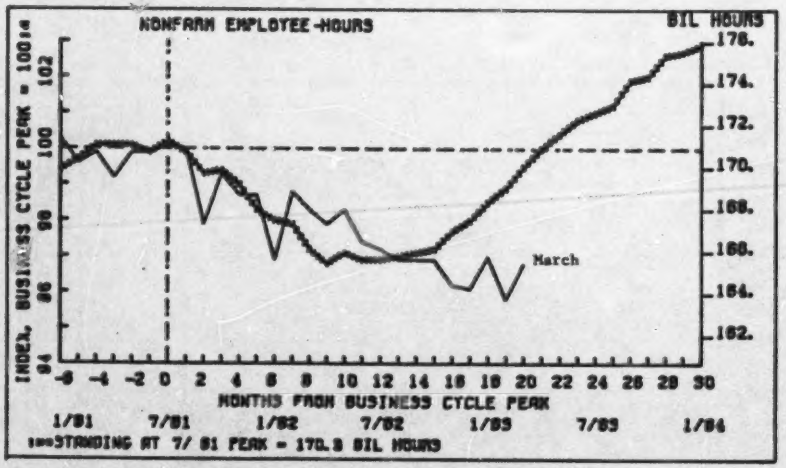

NONFARM EMPLOYMENT
THOUSANDS
INDEX, BUSINESS CYCLE PEAK = 100
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 91798.6 THOUSANDS

Chart 10


EMPLOYMENT/POPULATION RATIO
RATIO
CHANGE FROM BUSINESS CYCLE PEAK
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 569.7 RATIO


NONFARM EMPLOYEE-HOURS
BIL HOURS
INDEX, BUSINESS CYCLE PEAK = 100
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 170.9 BIL HOURS

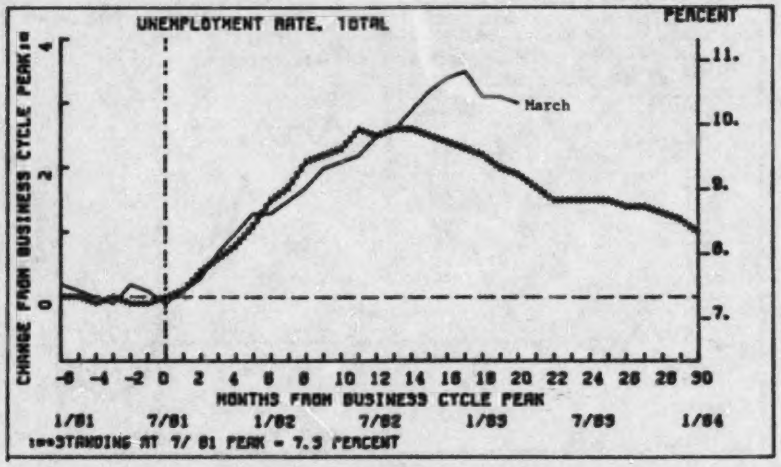

UNEMPLOYMENT RATE, TOTAL
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
March
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 7.5 PERCENT

Chart 11

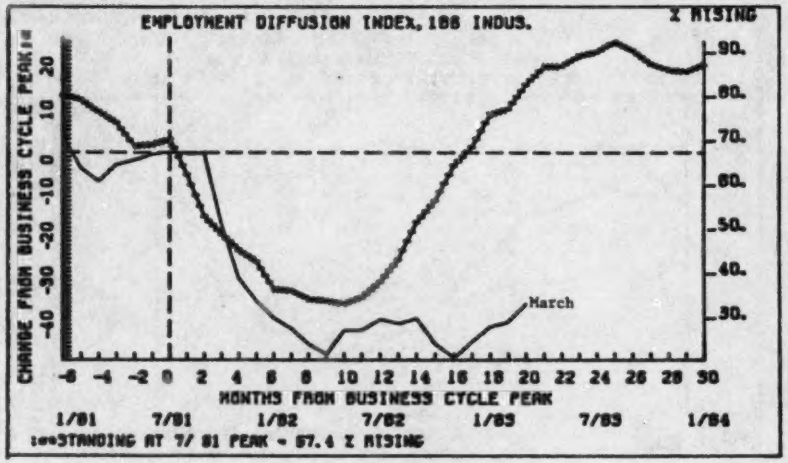
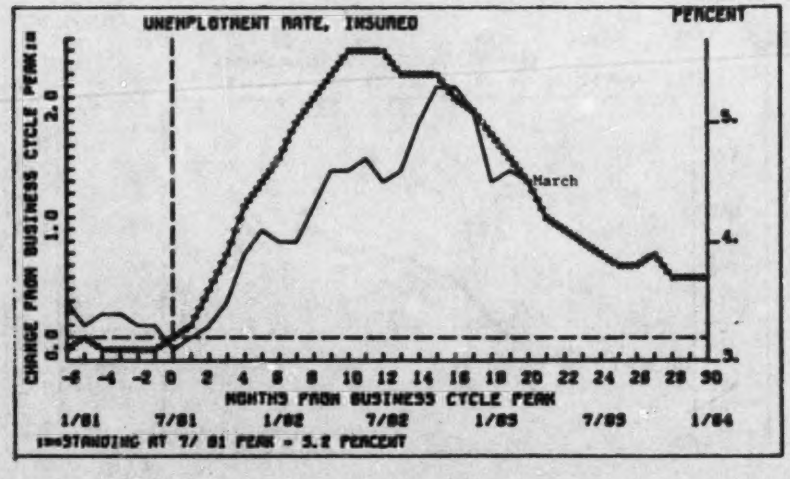
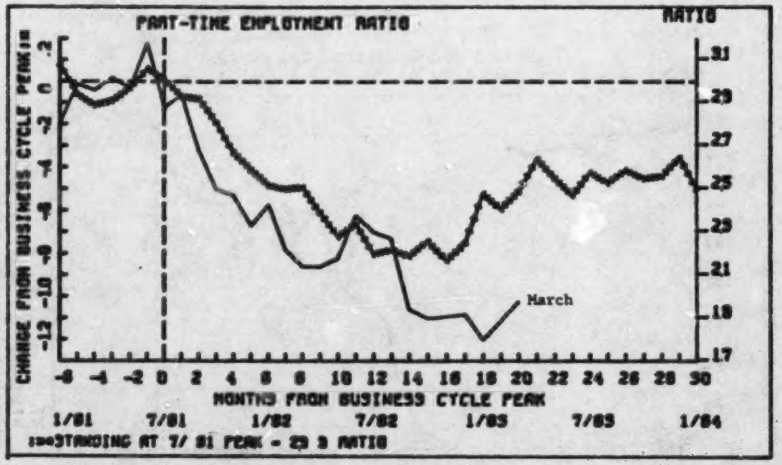

EMPLOYMENT DIFFUSION INDEX, 186 INDUS.
% RISING
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
March
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 67.4 % RISING

Chart 12


UNEMPLOYMENT RATE, INSURED
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
March
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 3.2 PERCENT


PART-TIME EMPLOYMENT RATIO
RATIO
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
March
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 29.3 RATIO

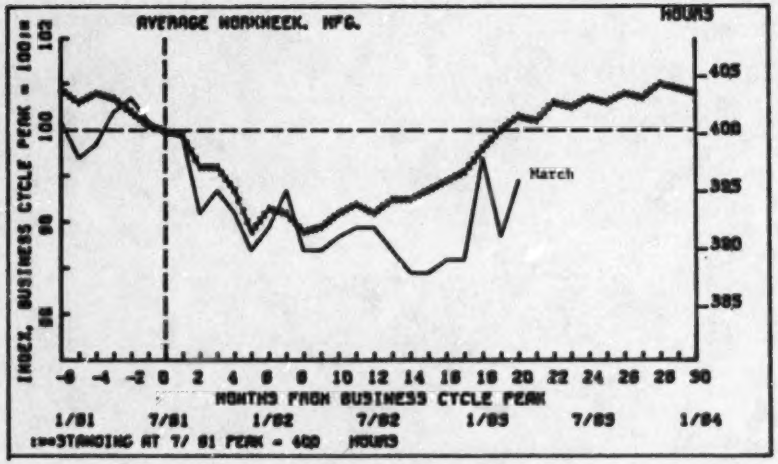


Chart 13

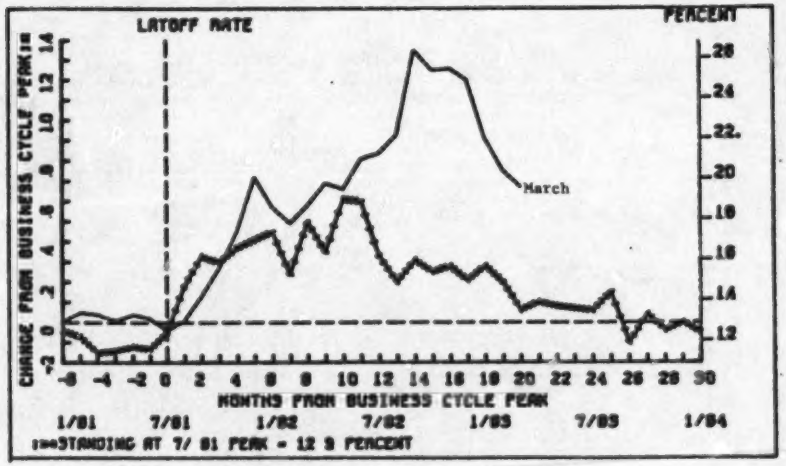
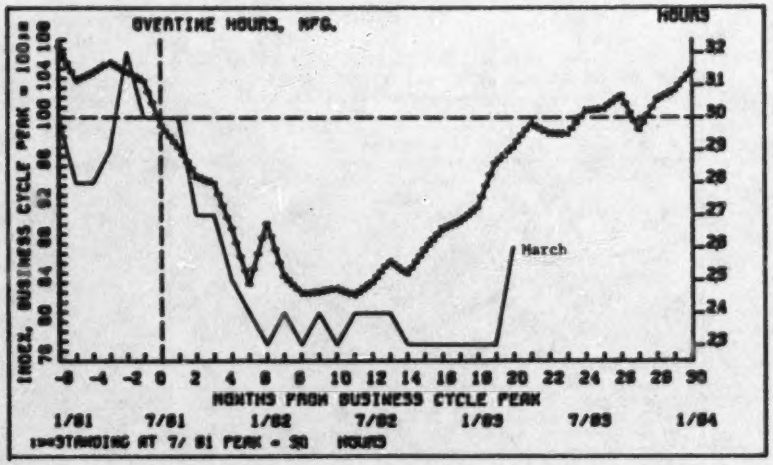
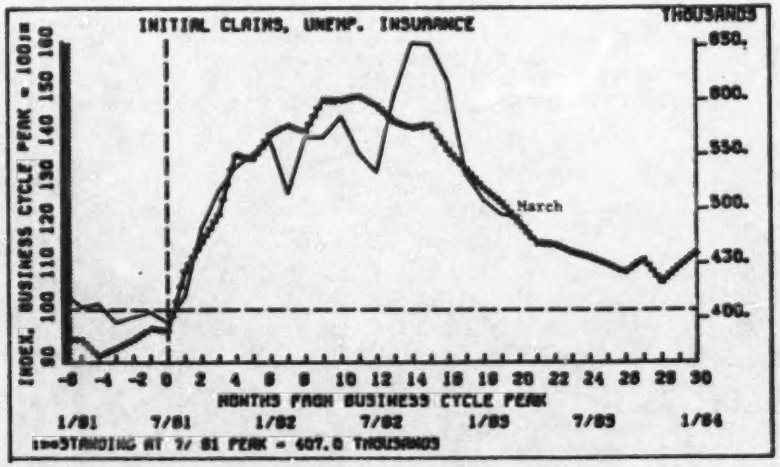


Chart 14





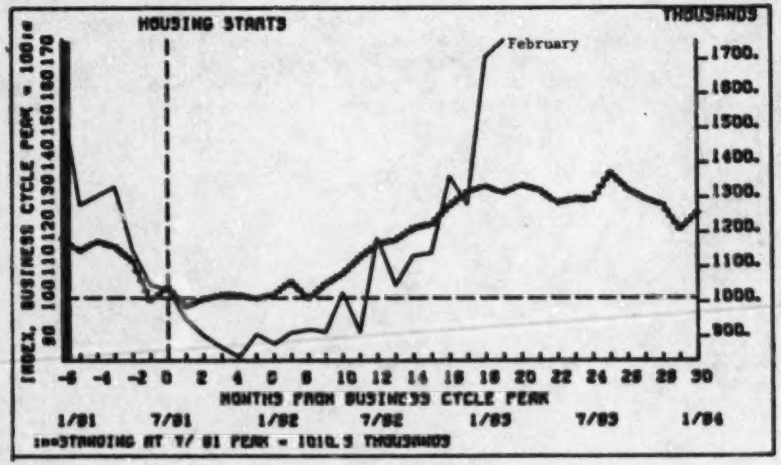

HOUSING STARTS
THOUSANDS
February
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 1010.3 THOUSANDS

Chart 15

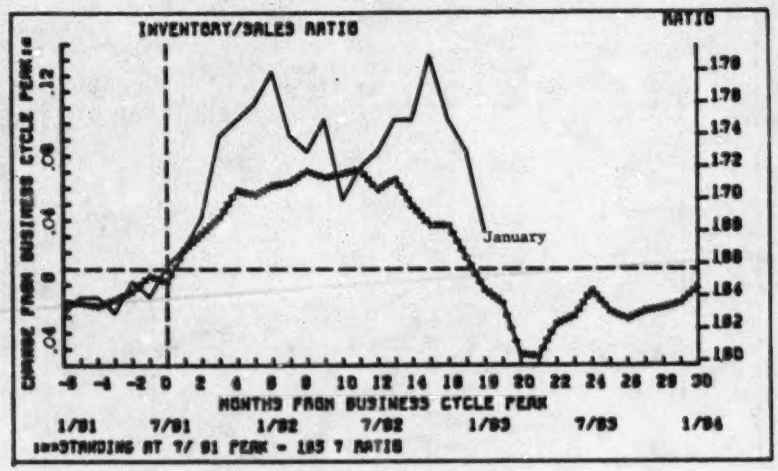
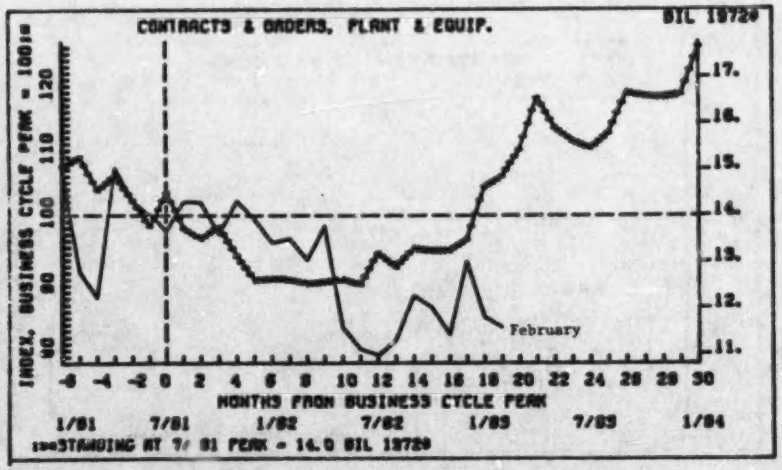
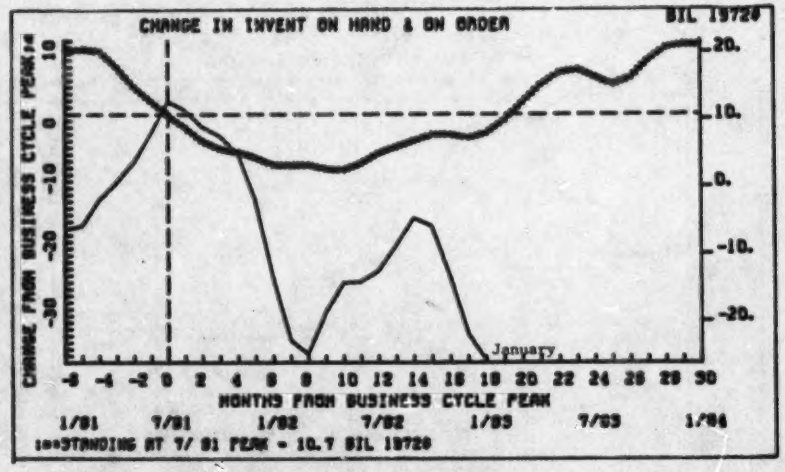

INVENTORY/SALES RATIO
RATIO
January
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 1.85 RATIO

Chart 16


CONTRACTS & ORDERS, PLANT & EQUIP.
BIL 1972$
February
INDEX, BUSINESS CYCLE PEAK = 100
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 14.0 BIL 1972$


CHANGE IN INVENT ON HAND & ON ORDER
BIL 1972$
January
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 10.7 BIL 1972$

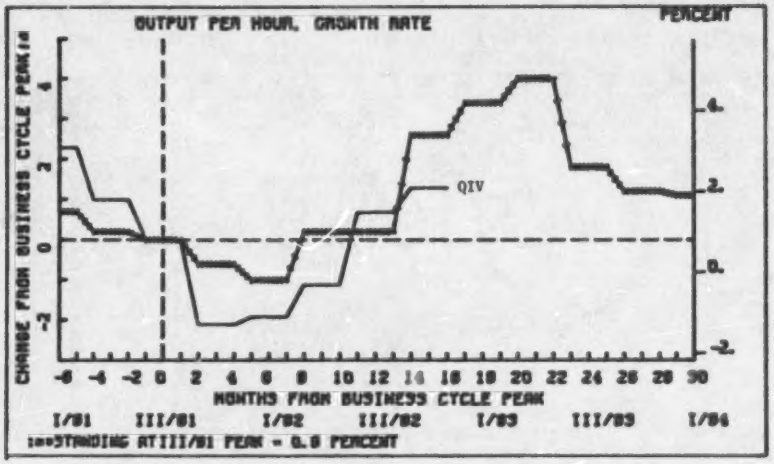

OUTPUT PER HOUR, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
QIV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83 I/84
STANDING AT III/81 PEAK = 0.8 PERCENT

Chart 17

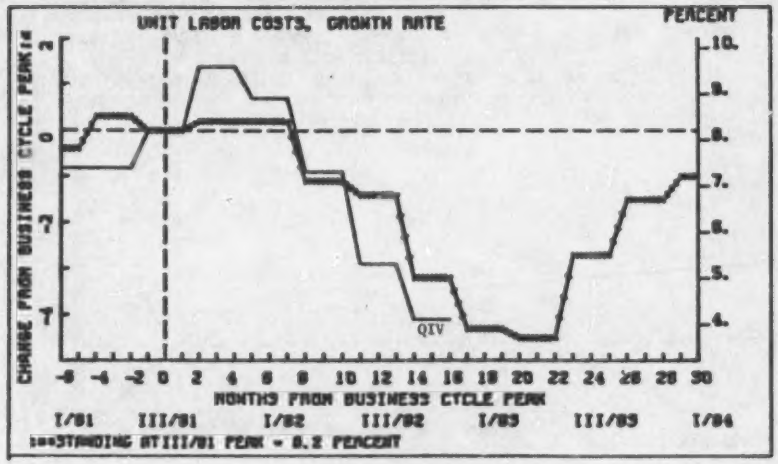
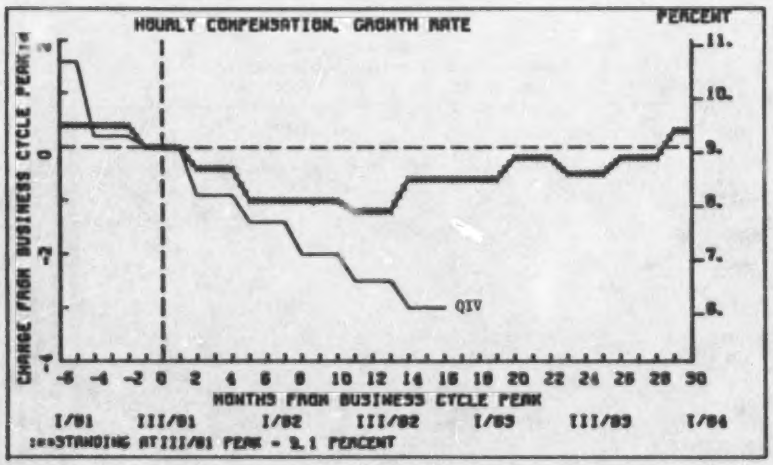
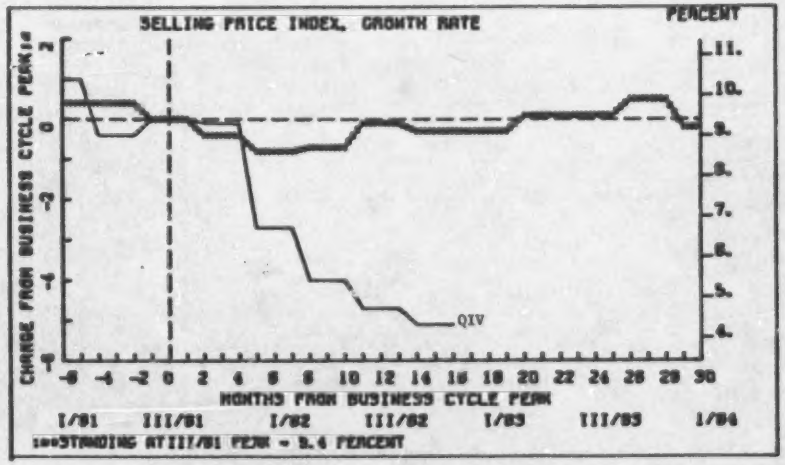

UNIT LABOR COSTS, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
QIV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83 I/84
STANDING AT III/81 PEAK = 8.2 PERCENT

Chart 18


HOURLY COMPENSATION, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
QIV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83 I/84
STANDING AT III/81 PEAK = 9.1 PERCENT


SELLING PRICE INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
QIV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83 I/84
STANDING AT III/81 PEAK = 9.4 PERCENT

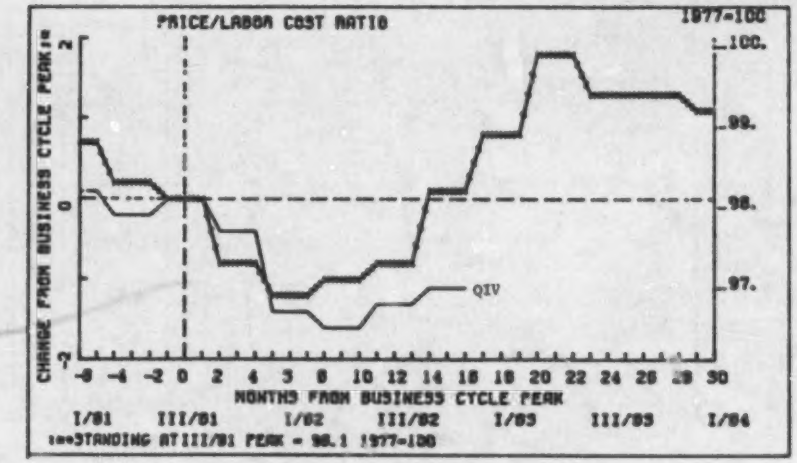


Chart 19

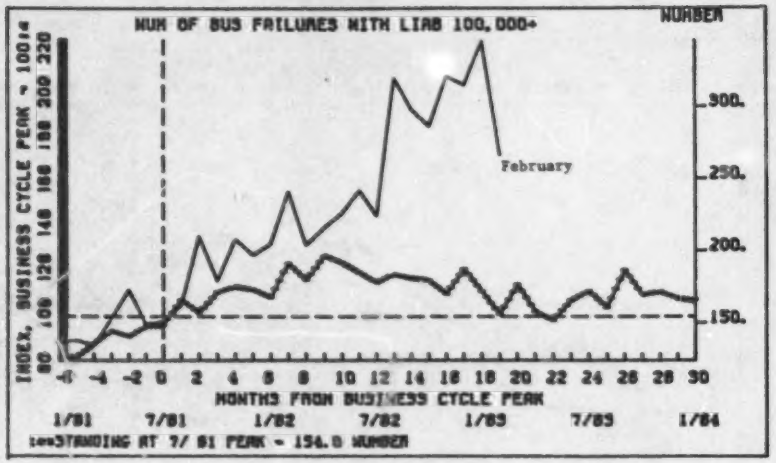
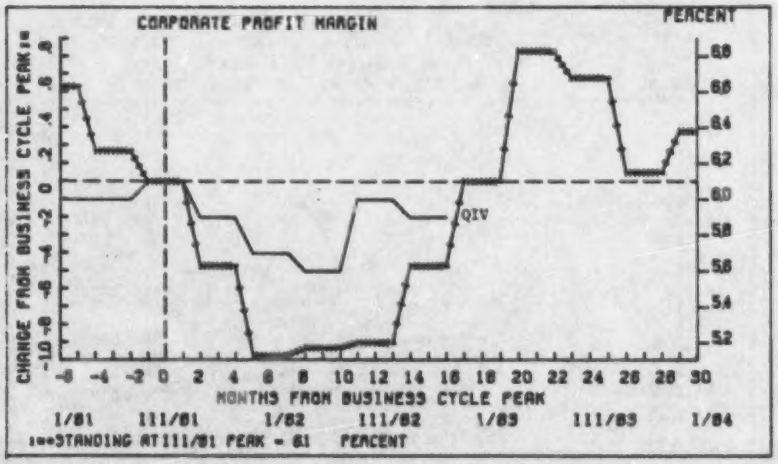
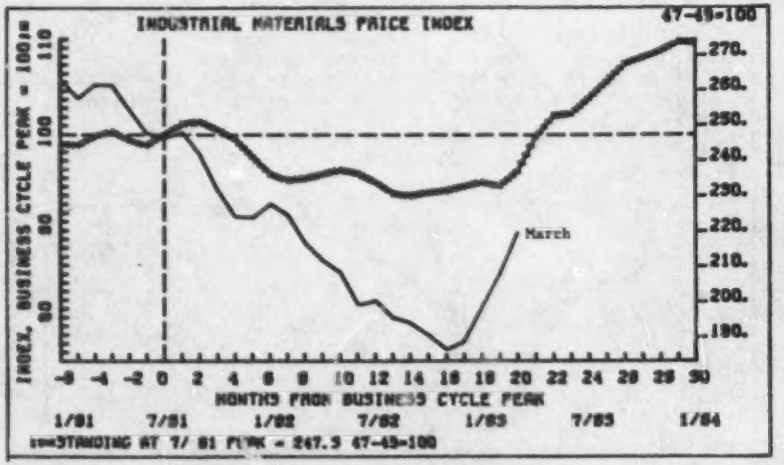


Chart 20


CORPORATE PROFIT MARGIN
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
QIV
MONTHS FROM BUSINESS CYCLE PEAK
I/81 III/81 I/82 III/82 I/83 III/83 I/84
1=STANDING AT III/81 PEAK = 61 PERCENT


INDUSTRIAL MATERIALS PRICE INDEX
67-69=100
INDEX, BUSINESS CYCLE PEAK = 100
March
MONTHS FROM BUSINESS CYCLE PEAK
I/81 7/81 I/82 7/82 I/83 7/83 I/84
1=STANDING AT 7/ 81 PEAK = 247.3 67-69=100

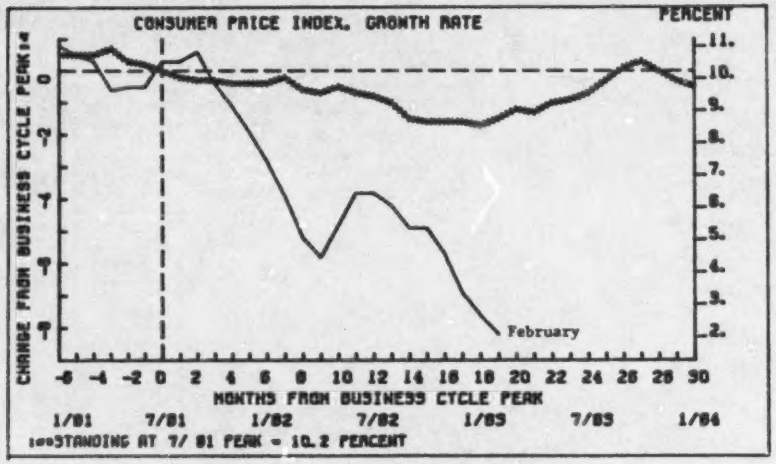

CONSUMER PRICE INDEX, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
February
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 10.2 PERCENT

Chart 21

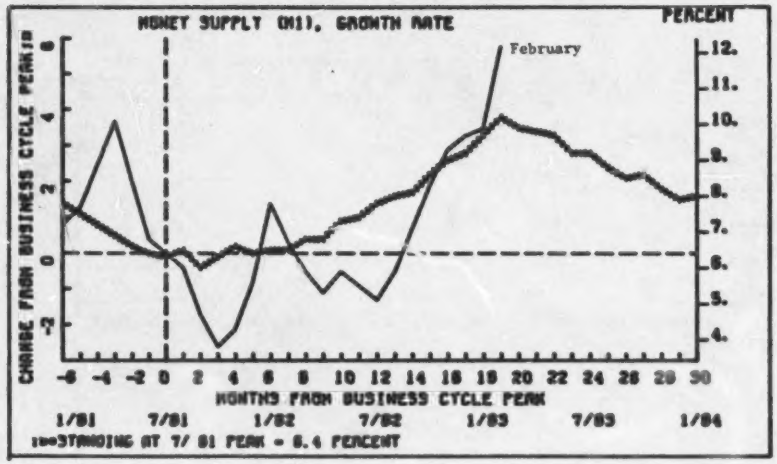
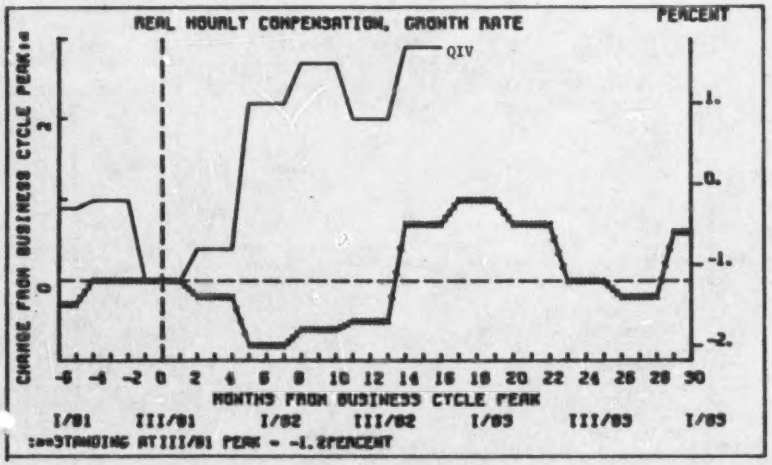
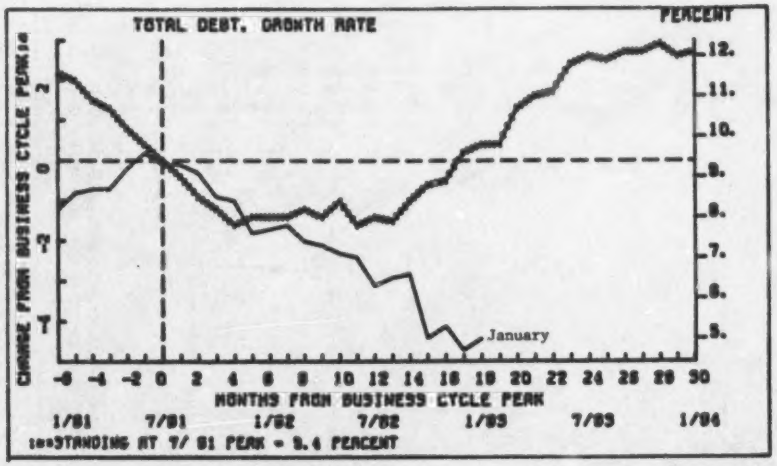
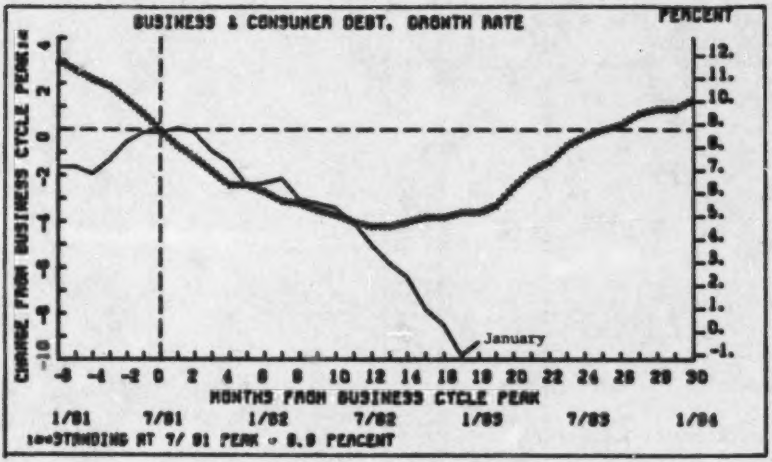

MONEY SUPPLY (M1), GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
February
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 8.4 PERCENT

Chart 22

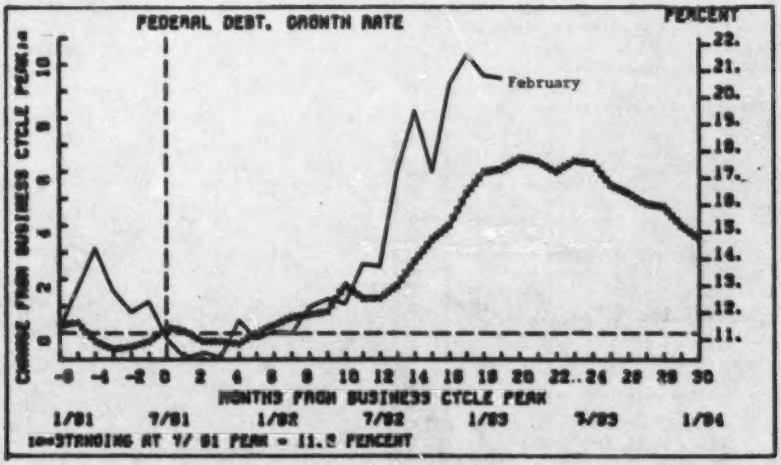

REAL HOURLY COMPENSATION, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
QIV
I/81 III/81 I/82 III/82 I/83 III/83 I/84
STANDING AT III/81 PEAK = -1.2PERCENT


TOTAL DEBT, GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
MONTHS FROM BUSINESS CYCLE PEAK
January
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 9.4 PERCENT

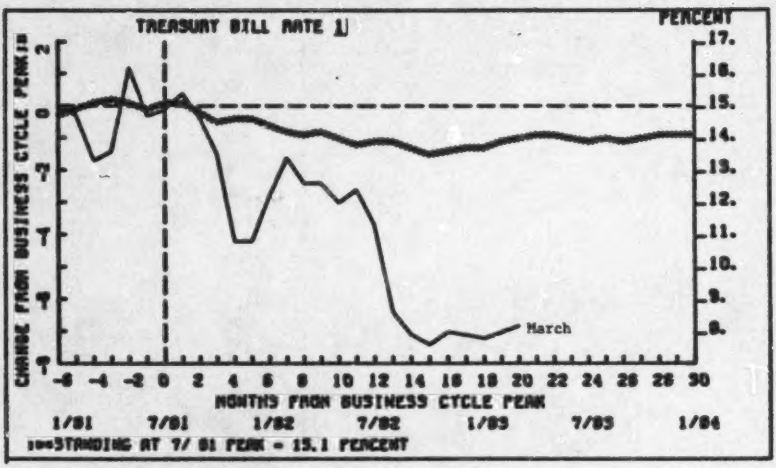

BUSINESS & CONSUMER DEBT. GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
January
1/81
7/81
1/82
7/82
1/83
7/83
1/84
1=OUTSTANDING AT 7/ 81 PEAK = 8.8 PERCENT

1/

Chart 23

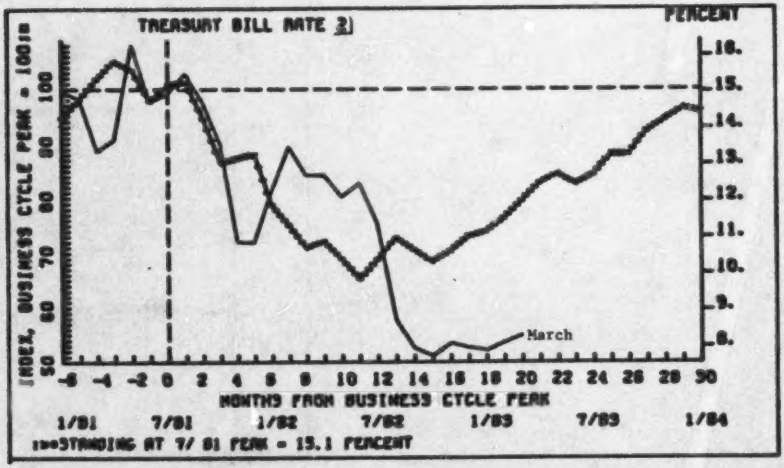

FEDERAL DEBT. GROWTH RATE
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK=0
MONTHS FROM BUSINESS CYCLE PEAK
February
1/81
7/81
1/82
7/82
1/83
7/83
1/84
1=OUTSTANDING AT 7/ 81 PEAK = 11.2 PERCENT

2/


TREASURY BILL RATE 1/
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 15.1 PERCENT

1/ Percentage points change

Chart 24


TREASURY BILL RATE 2/
PERCENT
INDEX, BUSINESS CYCLE PEAK = 100
March
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 15.1 PERCENT

2/ Percent change

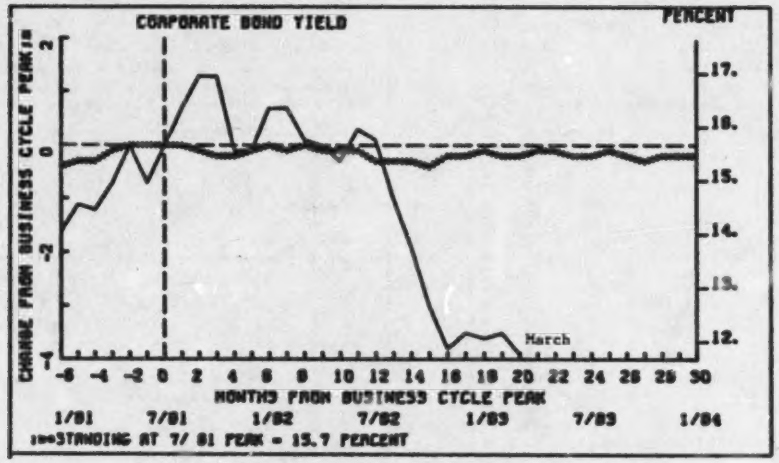
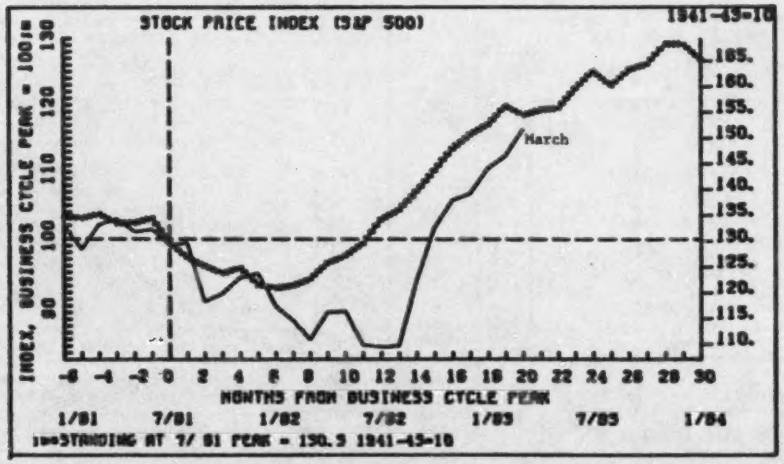

CORPORATE BOND YIELD
PERCENT
CHANGE FROM BUSINESS CYCLE PEAK
2
0
-2
-4
17.
16.
15.
14.
13.
12.
March
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 15.7 PERCENT

Chart 25


STOCK PRICE INDEX (S&P 500)
1941-43=10
INDEX, BUSINESS CYCLE PEAK = 100
130
120
110
100
90
185.
180.
175.
170.
165.
160.
155.
150.
145.
140.
135.
130.
125.
120.
115.
110.
March
-6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
MONTHS FROM BUSINESS CYCLE PEAK
1/81 7/81 1/82 7/82 1/83 7/83 1/84
STANDING AT 7/ 81 PEAK = 150.5 1941-43=10

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The Rutgers Center for International Business Cycle Research (CIBCR), established in 1979, specializes in the study of trends and fluctuations in economic growth and inflation in the United States and other countries. The analysis contained in this report is the result of its ongoing research programs on domestic U.S. business cycles. Readers are invited to submit comments and suggestions concerning this publication. In addition, readers wishing to secure data compiled by the Center on the six other major industrial countries or copies of research reports may do so by communicating with:

Center for International Business Cycle Research
Ackerson Hall, Rutgers University
Newark, N.J. 07102
Telephone: (201) 648-5217

ABOUT THIS REPORT

RECESSION-RECOVERY WATCH is a bimonthly report designed to analyze current business cycle trends in terms of previous recession or recovery patterns.

This report was begun in August 1979, under the direction of Dr. Geoffrey H. Moore, following the methodology for measuring recessions developed at the National Bureau of Economic Research. Although no forecasts are made, the materials in this report do permit glimpses into the future: first by analyzing the behavior of various leading indicators; second, by indicating what is likely to happen in terms of previous recessions and recoveries.

The leading indicators used in this report are relevant to future output and employment because they represent actions taken, like the placing of orders, that will result in future output, or because they reflect factors, like profits, that influence future decisions on output. The record of what happens during the later stages of business cycles is relevant because of the family resemblance among successive cycles, a resemblance that has its origin in the processes by which business cycles are generated. Every business cycle has its own surprises, partly because of policy actions taken, but many developments are not surprising, having occurred many times before. The historical comparisions contained in this report help one anticipate what is typical and distinguish it from the unusual.

Other CIBCR publications include International Economic Indicators, a monthly sixty page data compilation on the seven major industrial countries, and Inflation Watch, a bimonthly report designed to promote an understanding of inflation, prepared in collaboration with the American Enterprise Institute. Address all correspondence concerning subscriptions to the Center for International Business Cycle Research, Ackerson Hall, Rutgers University, Newark, N.J. 07102.

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